VOLUME XII
No. 5

GOVERNMENT OF NORTHERN IRELAND

MINISTRY OF AGRICULTURE

IMPERIAL AGRICULTURAL BUREAUX
27 SEP. 1937
INSTITUTE

MONTHLY REPORT

SEPTEMBER, 1937

PRINTED UNDER THE AUTHORITY OF HIS MAJESTY'S STATIONERY OFFICE
BY BELL & LOGAN, LTD., BELFAST

GOVERNMENT OF NORTHERN IRELAND

MINISTRY OF AGRICULTURE

MONTHLY REPORT

September, 1937

VOLUME XII No. 5

CONTENTS

PAGE

AGRICULTURAL CONDITIONS:—

THE CROPS, SUPPLIES AND PRICES 219
LIVE STOCK 221
THE COST OF LIVING INDEX FIGURE 223
THE MARKETS DURING AUGUST 223

ARTICLE:—

The Fixing of Egg Prices 224

MARKETING SCHEMES:—

The Agriculture Act, 1937:—

OATS AND BARLEY SUBSIDY 226
LAND FERTILITY SCHEME 226

Wheat Act, 1932:—

FINAL PAYMENT TO GROWERS FOR 1936/37 228

Agricultural Marketing (Pig Industry) Act, (N.I.), 1934:—

PIG PRICES FOR SEPTEMBER, 1937 229
COST OF STANDARD PIG RATION 231
GRADING STATISTICS 232

PAGE

Milk and Milk Products Act (N.I.), 1934 and 1936:—

RECENT PROSECUTIONS 232
NEW MILK PRICES 233
NEW MILK REGULATIONS 238

The Cattle Industry (Emergency Provisions) Acts, 1934 and 1935 239

AGRICULTURAL NOTES:—

SEASONAL FARM NOTES 240
SEASONAL LIVESTOCK NOTES 242
SEASONAL GARDEN AND ORCHARD NOTES 244
SEASONAL POULTRY-KEEPING NOTES 246

ANNOUNCEMENTS AND REMINDERS:—

GENERAL 249
NAMES AND ADDRESSES OF SECRETARIES AN AGRICULTURAL ORGANISERS OF COUNTY COMMITTEES OF AGRICULTURE 250
TRAINING OF GIRLS IN POULTRY-KEEPING, DAIRYING, ETC. 250
IMPERIAL FRUIT SHOW AND CANNERS' EXHIBITION, 1937 251
IMPORTATION OF SHEEP INTO NORTHERN IRELAND FROM SCOTLAND 251
REGISTRATION OF ACCREDITED POULTRY FARMS 252
FIFTEENTH EGG-LAYING TEST AT STORMONT:—
FINAL RESULTS 252
LIST OF COPPER AND BRASS RINGS 257

AGRICULTURAL PRICES:—

FEEDING STUFFS AT SPECIFIED CENTRES 263
FEEDING STUFFS (WITH CALCULATED VALUES OF PROTEIN AND STARCH UNITS) ... 264
FAT STOCK AT BELFAST AUCTION MARTS 269
LIVE STOCK AT FAIRS 270

AGRICULTURAL TRADE RETURNS:—

SHIPMENTS OF LIVE STOCK FROM NORTHERN IRELAND PORTS 271
IMPORTS AND EXPORTS OF AGRICULTURAL PRODUCTS 272
NUMBERS OF CATTLE AND ACCOUNT OF TRADE AT FAIRS 273

MINISTRY OF AGRICULTURE

MONTHLY REPORT

SEPTEMBER, 1937.

Following the very wet weather of July, the real Summer weather which prevailed during the greater part of August was welcomed by everybody, and particularly by the farmer, who was given fresh hope to pursue seasonal work. The mixed weather of July had, however, the effect of encouraging the growth of crops and grass, and in this respect it was of advantage, since the sowing season was abnormally late and a very dry July might have had a serious effect on crop yields.

At the time of writing suitable harvesting weather prevails, and should it continue there is every prospect that the yields from tillage crops this year may, after all, be equal to those of a normal season when sowings were made in good time.

Recent news of particular interest to farmers is the inauguration of a Land Fertility Scheme under the Agriculture Act of 1937 for the provision of lime and of basic slag at reduced prices. An explanation of this Scheme is given on pages 226 to 228, while on page 240 further consideration is given to the practical application of the Scheme.

The special feature of this issue is the article on page 224 dealing with the arrangements made for the fixing of prices of eggs, purchased from producers by licensed wholesale dealers, as provided for by the Marketing of Eggs Act (Northern Ireland), 1936.

AGRICULTURAL CONDITIONS.

AGRICULTURAL CONDITIONS AT 1st SEPTEMBER, 1937.

Summer weather conditions, which made a belated appearance this year at the end of July, remained throughout August, and on the whole the month was a favourable one for the agriculturist. During most of the daylight hours dry and warm conditions prevailed, but there were several heavy showers interspersed throughout the month, particularly during the third week, when temperatures fell to slightly lower levels. This mixture of rains and sunshine was most beneficial to growing crops and pasture lands, and full advantage was taken of the many favourable periods to push forward with harvesting work. Much of the late cut hay was saved under satisfactory conditions in the earlier part of the month, and the harvesting of the flax crop was almost completed. The harvesting of the corn crops was also well under way in most parts of the country at the close of the month.

Pasture lands, as stated, responded to the moist and warm conditions and, generally, were providing an excellent supply of keep, and this, together with the kindlier weather, helped greatly in improving the condition of live stock. Food supplies, generally speaking, are adequate for stock feeding, but purchased meals, especially those suitable for pigs and poultry, remained dear. Some farmers were feeding fair supplies of concentrates to fattening stores and to dairy cattle on grass, but it is understood that this practice had lessened to some extent since the arrival of better weather.

Most herds of cattle have been maintained in a normal healthy condition. None the less there has been a larger number of complaints of disease and other forms of ill-health than at this time in recent years. One disturbing feature has been the spread of felon or mastitis among dairy herds throughout the country. From County Tyrone it was learned that an increasing number of owners had reported cows returning to service, and that this was causing some concern in certain districts. "Hoose" and "red water" also gave some trouble, but these attacks were of the usual seasonal dimensions and gave no undue cause for alarm.

Sheep are in a healthy condition and only comparatively few animals suffered from fluke and lameness caused by the excessive dampness of some grazing land, but maggot fly has been rather prevalent this year.

THE CROPS.

WHEAT.—The condition of this crop varies to a considerable extent. In many instances where the crop was in a backward state the rains and the warm sunshine last month effected a marked improvement. Harvesting as a general rule will be a little later than usual as the spring varieties were slow in ripening. Autumn and winter-sown wheat has been harvested and the results have been fairly satisfactory, but the reports on the condition of spring-sown wheat are not encouraging, and it is feared that the yields will be below average. Harvesting operations continue, but in view of the variability of the results it is almost impossible at this stage to give even a rough idea of the average yield of this crop.

OATS.—In some early districts this crop has been cut and stooked, and elsewhere this work is proceeding apace. The straw was standing up well, and the improved weather conditions hastened growth to such an appreciable extent that harvesting generally will be earlier than anticipated following the late sowings this year. These remarks apply particularly to oats sown on lea land, as rather less satisfactory reports have been received about the crop on potato ground. Granting that favourable weather continues for the saving of the crop the yields should be good, as present estimates suggest that lea oats will give higher than average yields, whilst yields from oats on potato ground may be lighter than in a normal season.

The very small lots of white oats marketed during August appreciated in price on the month from 8/1d. to 9/4d. per cwt.

BARLEY.—This crop also grew out well last month and, although a fair amount of "lodging" occurred, this was generally less noticeable than in recent years. In the early districts good fields of barley have been well saved and the cutting of the remainder of the crop has been completed. Although the general prospects are not bright, especially in regard to the late harvested fields, the yields may be up to average dimensions in some of the early districts.

FLAX.—Latterly this crop made a good improvement, and it seems likely from all accounts that the fibre will yield rather better than was anticipated. The major portion of the crop has been pulled and handled, and in some early districts the bulk has been stacked. Scutching, however, has not yet commenced.

POTATOES.—The growing crop was looking extremely well, having maintained good growth up to the last week of August, since when the incidence

of potato blight disease has become general. This was unfortunate, as hitherto the disease was, generally speaking, less prevalent than at the corresponding date in recent years. Its rapid spread of late was chiefly among the second early variety British Queen. There is a fair amount of green to be seen among crops that are still growing out, and this year's main crop will generally be later than in a normal year as only in some early districts have the plants reached the ripening stage. The foliage has been blackened to a considerable extent recently with the spread of blight, and the recent night frosts have also terminated growth in many fields. At the moment the prospects of heavy yields are quite good, the present extent of the damage done to the haulms being considered rather less than in a normal season. Much, however, depends on the weather of the next few weeks.

Nearly all the early and second early varieties of potatoes have been lifted and the results have given satisfaction. The digging of the main crop has not yet commenced on any appreciable scale.

Decreased supplies of early varieties of potatoes at markets last month were supplemented by an increased quantity of new season's main crop, principally of the Arran Victory variety, and average prices over the month fell from 6/11¼d. to 3/7d. per cwt. for early varieties and from 4/11½d. to 3/1¼d. per cwt. for main crop.

Shipments of potatoes during August were on a much reduced scale, compared with a month ago, but on the whole they were not much below those recorded for the corresponding period of 1936, as the following figures show :—

1937		1936	
Week ended	tons	Week ended	tons
7th August ..	248	8th August ..	567
14th ,, ..	230	15th ,, ..	301
21st ,, ..	250	22nd ,, ..	175
28th ,, ..	346	29th ,, ..	139

MANGELS.—The plants have made good growth as a general rule, and if the rate of improvement continues until the roots are ready for lifting fairly good results should be obtained. Since, however, there is a fair number of fields where the crop is in a backward state, it is feared that the general average yield may be lower than usual. A feature of the condition of this year's crop is the weedy condition of many fields, a legacy from the very wet weather of July.

TURNIPS.—The turnip crop also made good growth during the better weather of last month, but here again weeds are very much in evidence, having been allowed to make headway by the very inclement weather conditions of the previous month, and latterly the attention of labour, that would otherwise

have been directed to their eradication, was fully engaged with harvesting work. There are many promising crops, and on the whole turnips should yield up to normal dimensions. It was learned that on light soils the absence of sufficient moisture, together with the strong sunshine last month, was reflected in the wilted appearance of the plants, whilst, as a contrast, in heavy soils the crop in some instances is stated to have not yet recovered from the excessive rainfall and cold temperatures of July.

HAY.—The cutting and saving of this crop have been finished except in a few late districts where a relatively small proportion of meadow hay remains to be harvested. A fair amount of hay has been stored, but much of the carting work yet remains to be done. The quality of this year's hay crop will generally be much superior to that of 1936. Hay saved at the end of June was of good quality, and although much of the crop saved during July will have suffered, the quality of meadow hay harvested under good conditions last month is better than that saved previously. Seeds hay also was saved in much better condition than usual this season. Threshing has commenced but the preliminary results have been too variable to make a general comparison with last year's yield. On the whole the yield of fodder will be slightly higher than that recorded for 1936.

Increased supplies of upland hay, most of which was this season's crop, were marketed during the past month, and average prices cheapened on the month from 76/- to 69/9d. per ton.

Small lots of grass-seed have recently been marketed and prices have ruled around 8/- per cwt. for the perennial variety.

LIVE STOCK.

CATTLE.—Store cattle have shown some improvement recently, but there is a fair number backward in condition. The health of the stock is, on the whole, normal. Occasional outbreaks of "hoose" and "red water" continued to give trouble, but otherwise the herds were free from disease. There is little doubt, judging from even casual observations made throughout the country, that the numbers of cattle in Northern Ireland are smaller than in recent years. In some districts larger numbers are being fattened on the grass than in former years, whilst in others it was learned that numbers had fallen of late. Among herds of dairy cattle there has been an epidemic of felon or mastitis. Another source of worry to some owners was the increase in the tendency for cows to return to service. Generally speaking, therefore, the health of the dairy stock was less satisfactory than usual, but the milk yield was stated to have been maintained at the normal level for the season. Calving proceeded

without any unusual incidents. Much smaller supplies of cattle were shown at fairs last month than formerly, and although the demand for good quality stores remained keen, prices generally were a little easier on the month. The best types of springing cows and heifers continued to be scarce, and trade for these was steady at recent high prices.

Sheep.—The flocks are in a fairly good condition, but the severe weather is still reflected in the thin and backward state of some breeding ewes. There have been complaints of maggot fly which appears to have been rather more troublesome than usual this year in some districts, and a few isolated cases of liver fluke disease and foot rot were reported last month. Large supplies of sheep were offered at fairs during August, and good quality breeding stock and well-conditioned lambs met a strong enquiry at better prices than were obtained at this time last year.

Pigs.—There were fairly large supplies of young pigs available at fairs last month and business at most centres continued steady at firm rates. It was reported that the recent growing practice of selling off large sows for slaughter has created a shortage in some districts and this was reflected to some extent in the keener demand for good quality young sows at higher rates. The best types of first litter animals were fetching up to £11 per head and second litter sows up to £14 per head. The general run of prices at fairs, however, was from £5 and £10 each according to age and quality.

Supplies of pork were fully up to requirements last month, during which the demand was, on the whole, quiet.

Horses.—The horse trade was, if anything, a little quieter last month, probably on account of the harvesting work, and although the smaller supplies were selling well, prices in some instances declined on the month. The best types of young horses for farm work were fetching about late rates at from £35 to £55 each, and lighter types for van work were selling up to the latter figure. Ordinary types of good workers were quoted at from £15 to £30 each.

Milk.—The milk yield has dropped a little on the month, but supplies were maintained at the normal level for the time of year. It was learned that farmers were using larger quantities for feeding to calves. Creameries paid from 4d. to 4½d. per gallon for milk delivered, the separated milk being returned to the farmer.

The rate of equalisation payments for milk produced in Northern Ireland and delivered to creameries for manufacturing purposes, has been determined at 0.56d. per gallon for the month of July, 1937, in accordance with the Milk and Milk Products Act (Northern Ireland), 1934.

THE COST OF LIVING INDEX FIGURE.

At 1st August, 1937, the cost of living index figure was 55, or the same as that for the previous month. The figure at 1st August, 1936, was 46.

THE MARKETS DURING AUGUST.

At the markets last month supplies of the principal vegetables showed further seasonal increases, and prices in most cases re-acted to lower levels. Cabbage was reduced by 2¼d. to 1/- per dozen, and leeks by 2¾d. to 5¼d. per bunch. Parsley, however, advanced from 10½d. to 1/1d. per bunch. New season's supplies of root vegetables were marketed in greatly increased quantities at Belfast. Carrots were ½d. dearer at 8d. per bunch, but parsnips cheapened by 1d. to 6d. per bunch, and turnips were 1½d. cheaper at 5d. per bunch.

Increased supplies of farmers' print and lump butter were dearer on the month by ¼d. per lb. at 1/2½d. per lb. for print and 1/- per lb. for lump.

Eggs were seasonally reduced in supply and dearer. Hen eggs advanced by ¾d. to 9¾d. per lb., and duck eggs by 1/0¼d. to 10/1¾d. per 120. Hens and chickens were greatly increased in quantity, and price changes were slight. Hens were ¼d. cheaper at 1/6¼d. each, and chickens ¼d. dearer at 2/5¼d. each. A much smaller supply of ducks was unchanged in price at 2/7d. each.

Wool supplies were reduced by about 50% on the month. The average price of long unwashed wool was unaltered at 1/0¾d. per lb., and mountain improved by ½d. to 11½d. per lb.

THE FIXING OF EGG PRICES.

As readers of the Ministry's Monthly Report are aware, one of the primary objects of the most recent Marketing of Eggs Act (Northern Ireland) which was passed last year was to enable statutory prices to be fixed for eggs purchased from producers by licensed wholesale dealers. If such prices were fixed it would be possible to provide for the payment of a higher price for "new-laid" eggs than for "seconds", and there would then no longer be any incentive for producers to "hold over" eggs during a period of rising prices in order to obtain a better return for their eggs. This, in its turn, would reduce the number of "seconds" delivered to shippers' stores, and would thus tend to raise still further the standard of Northern Ireland eggs offered in the cross-channel markets. It is in the interest of every person engaged in the egg industry in Northern Ireland, whether he be producer or wholesale dealer, that he should do everything in his power to maintain the standard of Northern Ireland eggs as offered on the cross-channel and home markets, for it is upon this standard that the price obtained on these markets depends, and any decline in the price obtained by the wholesale dealer must be reflected in the price received by the producer for his eggs.

The Act of 1936 provided that in determining egg prices the Ministry must act in accordance with advice given by an Egg Marketing Committee. This Committee, which was established last year, consists of three members appointed by the Minister of Agriculture (of whom, one is Chairman) five representatives of producers, five representatives of Class A dealers, and two representatives of Class B dealers. Since its constitution the Committee has been engaged in determining the most equitable basis upon which prices could be fixed, and it has recently tendered advice to the Ministry setting forth the principles in accordance with which, in the Committee's view, the Ministry should, in the first instance, proceed to fix the prices to be paid to producers each week.

At an early stage in its deliberations, it appeared evident to the Committee that, as stated above, the producer's price must ultimately depend on the price realised by Northern Ireland eggs on the cross-Channel and home markets. In other words, this latter price must, after the necessary deductions for transport have been made, be divided between the producers and wholesale dealers, and the problem facing the Committee was to determine the fairest way in which this division could be made. In order to assist it in coming to a decision the Committee decided to institute an investigation into the costs

of the collection, testing, grading and packing of eggs by licensed wholesale dealers. The Committee was fortunate in securing for the purpose of this enquiry the services of Mr. A. Bridges, M.A., Deputy Director of the Agricultural Economics Research Institute, Oxford, who has had very considerable experience of costing enquiries of this kind. The Class A dealers on their part co-operated by completing questionnaires and by affording every assistance to Mr. Bridges and the Committee. As a result of this enquiry, the Committee was in possession of very valuable information in regard to the actual costs incurred by Class A dealers in handling eggs. On the basis of this information a sub-committee of the Egg Marketing Committee set itself the task of determining what would be a reasonable margin to allow Class A merchants for the services which they perform. This sub-committee, which was representative of producers, Class A and Class B dealers, and included the members nominated by the Minister of Agriculture, devoted considerable time and trouble to the examination of Mr. Bridges' report, and every item in the expenditure of the Class A merchants was subjected to careful scrutiny—particularly by the producers' representatives. Finally, it was agreed that 21.9d. per long hundred would be a reasonable margin to allow Class A dealers for all the costs involved in the work of collecting, grading and packing eggs, including all overhead expenses and the remuneration of management. Part of this margin which is designed to cover the costs of packing material will be reviewed at frequent intervals.

Briefly, the method of calculation recommended by the Committee is as follows: Class A dealers will be asked to make returns each week to the Ministry of their sales of hen eggs and of the prices realised. Deductions of transport charges will be made from these prices, and the service margin subtracted from the resultant. On the basis of the result a price per lb. for hen eggs will be calculated. A price for duck eggs will be calculated in accordance with a similar procedure. For the present it is not proposed to fix different prices for "new-laid" eggs and "seconds", as during the winter season the quantity of "seconds" offered by producers is not large. By next spring, however, arrangements will have been made for the payment for eggs on a quality basis.

One recommendation of the Committee which is of particular interest to producers, is that, in order to encourage the reduction of the period which must elapse between the production of eggs and their being tested, producers who deliver their eggs at registered premises of Class A dealers, or, for a period at the commencement of the scheme, at a collecting depot approved by the Committee should receive a bonus of ½d. per lb. in addition to the prices as calculated above.

Class B dealers will be especially interested in two recommendations of the Committee which will affect them. The first is that for the service of the collection of eggs which they perform they will receive a margin of $\frac{7}{16}$ths. of a penny per lb. Secondly, they will in future be required to sell on contract to Class A dealers, and a Class B dealer will not be permitted to contract with more than two Class A dealers. Also it is announced by the Ministry that it is proposed to reduce to 24 hours the period of three days within which eggs must be delivered by a Class B dealer to a Class A merchant's store.

It is hoped that the new system of price fixing will become operative early in October, and all engaged in the egg industry are asked to co-operate with their representatives upon the Egg Marketing Committee and with the Ministry in making the scheme a success. It has been possible to devise a scheme to which all parties upon the Committee, after long and careful examination of the relevant considerations, have felt themselves in a position to agree, and it is, therefore, the more desirable that it should be given a fair trial and that the new provisions should be loyally observed.

MARKETING SCHEMES.

THE AGRICULTURE ACT, 1937.

OATS AND BARLEY SUBSIDY.

Farmers are reminded that in order to obtain any subsidy which may become payable for oats and barley under the provisions of the Agriculture Act, 1937, they must make application upon the prescribed form. Copies of the prescribed form have been distributed by members of the R.U.C. to every grower of oats or barley, who at the 1st June last returned an area of one statute acre or more under either of these crops. The form when completed must be returned to the nearest R.U.C. Barracks on or before the 30th September, 1937.

Further information regarding the subsidy may be obtained from the Royal Ulster Constabulary, from the Instructors in Agriculture, or from the Ministry of Agriculture, Stormont, Belfast.

THE LAND FERTILITY SCHEME.

HOW TO MAKE USE OF THE SCHEME.

As was foreshadowed in the last issue of the Ministry's Monthly Report, this Scheme has now been put into operation. The Scheme has as its main object the increasing of the fertility of both arable and grazing land in the

United Kingdom which, of course, includes Northern Ireland, by offering inducements for the greater application to such land of lime and basic slag.

In Northern Ireland, in particular, there is not the slightest doubt that the greatest benefits are to be derived from an increased use of lime and slag. The soil, generally speaking, is very greatly in need of the application of lime in particular, and as a matter of fact it has been estimated that something over 70% of the agricultural land is deficient in lime. This unsatisfactory position has, no doubt, arisen chiefly from the fact that in the past the cost of applying lime has been somewhat high, while the same reason prevented the more general use of phosphatic fertilisers, such as basic slag.

The scheme, by ensuring that farmers may procure lime at half-price and slag at a reduction of 25% will, it is hoped, do much to lead to a more adequate use of these important aids to soil fertility throughout Northern Ireland.

The Scheme is being administered by the Land Fertility Committee, London. The Ministry is acting as the Committee's Agent in Northern Ireland, and except where otherwise directed correspondence in regard to the operation of the Scheme in Northern Ireland should be addressed to the Ministry at Stormont, Belfast.

A. ADVICE TO OCCUPIERS.

(1) Decide what quantities of lime or basic slag or both are needed for your fields; in this connection you are advised to make full use of your County Instructors and of the Ministry's advisory staff. As grants do not cover the whole cost of the lime or basic slag, you should only order as much as is necessary to apply to your fields. Grants will amount to approximately half the cost in the case of lime, and one-quarter the cost in the case of basic slag, including transport to the farm in each case.

(2) Order your lime or basic slag from an *Approved Supplier only.* List of Approved Suppliers may be consulted at any Police Barracks or Creamery and also at the offices of the County Committees of Agriculture.

(3) Grants will only be made in respect of lime or basic slag—

(a) produced in Great Britain or Northern Ireland;

(b) bought and delivered in lots of two tons or over (an order of one ton of lime and one ton of slag would not be eligible for grant);

(c) actually applied within six months of the date of delivery to the land of the occupier claiming the grant.

(4) When your order has been delivered, the Supplier will send you a form, Part I. of which he has already filled in. *You should complete Part II., which*

is your application for a grant, very carefully and send the form back at once to the Supplier who will fill in Part III. and forward the whole form to the Ministry.

(5) *Special Cases.* The Scheme makes special provision for Occupiers who wish to apply for grants in respect of lime they have produced or prepared themselves. A special procedure is also provided whereby persons who do not require as much as two tons of either lime or basic slag for agricultural purposes may by forming themselves into associations obtain the benefit of the Scheme. Questions about these special cases should be addressed to the Ministry.

B. NOTES TO SUPPLIERS.

This only applies to suppliers already on the Approved List. Merchants not on the Approved List who wish to be approved should, if they have not already done so, write to the Ministry.

(1) Lime or basic slag must be produced in Great Britain or Northern Ireland and be free from adulteration with any other substance.

(2) Producers must not exceed the prices agreed upon with the Land Fertility Committee when the application form for approval was accepted; Distributors must not charge more for their services than the amount agreed to when applying for approval.

(3) In dealing with any occupier it should be made clear whether or not the prices charged include delivery to the farm.

WHEAT ACT, 1932.

THE WHEAT COMMISSION MAKE A FINAL PAYMENT TO WHEAT GROWERS FOR 1936-37.

The Wheat Commission has despatched cheques to 81,902 registered growers on the 10th September, 1937, in respect of the final payment of deficiency payments for the cereal year ended 31st July, 1937. The aggregate amount involved in this final payment is approximately £768,350.

In addition, 694 payments, aggregating £8,800 will be made as soon as possible in those cases where, by reason of the death or bankruptcy of a registered grower, or for some other reason, the Commission have had to investigate the title of persons claiming the deficiency payments. When these payments have been made, the Commission will have disbursed approximately £777,000 as the final payment for the cereal year 1936-37.

The final payment and the advance payment made in April, 1937, together amount to a total payment of approximately £1,337,000 for 1936-37. Averaged over all registered growers who have received deficiency payments, this sum would provide just over £16 per grower.

Approximately 23,713,000 cwts. of millable wheat have been credited to date in the books of the Commission to the 82,596 growers who have qualified for deficiency payments, and 174,040 wheat certificates relating to the sales of this wheat have been delivered to the Commission.

The deficiency payment for 1936-37 is at the rate of 1s. 1.53d. per cwt. (approximately 5s. 1d. per quarter) in respect of all sales of wheat credited to growers for that year from wheat certificates delivered to the Commission.

Where growers have already received an advance payment of 8d. per cwt. on account of any wheat, the final payment with regard to that wheat will, of course, be the balance of 5.53d. per cwt. only.

AGRICULTURAL MARKETING (PIG INDUSTRY) ACT (N.I.), 1934:—

PIG PRICES FOR SEPTEMBER, 1937.

The following announcement has been made by the Pig Industry Council for Northern Ireland.

PRICES FOR DEAD PIGS.

The prices per dead cwt. for dead pigs sold by producers to curers in Northern Ireland in September, 1937, are as follows:—

Weight Class. (Dead Weight)	Grade 1.	Grade 2.	Grade 3.	U.L. or U.F.	Partly Black Pigs.
c.1.0.21 to c.1.1.13	65/9	62/9	59/9	55/9	5/- below relevant Grade Price.
c.1.1.14 to c.1.2.3	69/9	66/9	63/9	59/9	
Weight Class. (Dead Weight)	Grade A.	Grade B.	Grade C.	U.L. or U.F.	
c.1.2.4 to c.1.2.14	69/9	66/9	63/9	60/9	
c.1.2.15 to c.1.3.14	69/9	66/9	63/9	60/9	
c.1.3.15 to c.2.0.0	66/9	63/9	60/9	57/9	
c.2.0.1 to c.2.0.14	60/9	57/9	54/9	51/9	

Pig Carcases c.1.0.0 to c.1.0.20:—62/9.

Authorised cuts:—

(a) Broken ham (dry, shank and/or shell bone break)—5% of the gross value of the carcase.

(b) Broken ham (wet break)—12½% of the gross value of the carcase.

(c) Shoulder-stuck carcase—3/- per shoulder affected.

The gross value of a carcase is the product of the dead weight and the relevant grade or other price per cwt.

Where portion of a pig carcase weighing not less than c.1.0.21 or not more than c.2.0.14 is condemned and the existence of disease could not reasonably have been known to the producer before despatch to the curer the appropriate grade price shall apply. If the carcase is wholly condemned on account of disease, the existence of which could not reasonably have been known to the producer before despatch to the curer, the revelant Grade 2 or Grade B price shall apply.

The foregoing prices do not apply in the case of (a) wholly black pigs, boars, rigs or stags, sucked sows, and pig carcases weighing under c.1.0.0 or over c.2.0.14, and (b) pigs visibly diagnosable as diseased before despatch by the producer and subsequently condemned; emaciated or screw pigs; smelling pig carcases with definite indications of putrefaction, and pig carcases badly abused or damaged before being handed over by the producer to the curer.

Prices for Wiltshire Pigs Sold on Direct Contract.

In the case of pigs sold alive under direct contract to Wiltshire curers the prices per dead cwt. payable for pigs delivered in respect of the month of September, 1937, will be as follows:—

Weight Class. (Dead Weight)	Grade 1.	Grade 2.	Grade 3.	U.L. or U.F.	Unsuitable.
c.1.0.21 to c.1.1.13	75/9	72/9	69/9	65/9	62/9
c.1.1.14 to c.1.2.3	75/9	72/9	69/9	65/9	62/9
	Grade A.	Grade B.	Grade C.		U.L. or U.F.
c.1.2.4 to c.1.2.7	72/9	69/9	66/9		63/9
c.1.0.0 to c.1.0.20	Suitable 64/9		Unsuitable 62/9		
Over c.1.2.7	On the same basis as pigs sold dead.				

Prices for Live Pigs Sold to the Pigs Marketing Board (Northern Ireland).

In the case of pigs sold alive to the Pigs Marketing Board during September, 1937, the prices, according to grade, are as follows:—

Live Weight.	Grade 1.	Grade 2.	Grade 3.	Unsuitable.
c.1.1.14 to c.1.2.13	48/6	48/6	48/6	47/–
c.1.2.14 to c.2.0.0	56/9	54/6	52/3	U.L. or U.F. 49/3 / 47/–
c.2.0.1 to c.2.1.14	52/3	50/–	47/9	45/6
c.2.1.15 to c.2.2.7	50/–	47/9	45/6	43/3
c.2.2.8 to c.2.2.21	45/6	43/3	41/–	38/9

These prices do not apply to live pigs under c.1.1.14 or over c.2.2.21, live pigs intended for breeding, live boars, live sucked sows, rigs or stags, injured or diseased pigs, live in-pig gilts, or live pigs sold (on contract registered with the Pig Industry Council) to curers in Northern Ireland. All other live pigs inside the weights c.1.2.0. to c.2.2.21 can be sold only to the Board.

Authorised Deductions.

Every pig (dead or alive) sold to a curer or to the Pigs Marketing Board is subject to a levy and contribution at present amounting to 3/-.

In addition to this amount, a deduction of 4d. per pig may be made in the case of sales to curers to cover insurance, so that the producer will not suffer financial loss if the carcase is condemned as unfit for human consumption.

In the case of pigs sold to the Board, there is a deduction of 2/6d. per pig for marketing charges.

COST OF STANDARD PIG RATION.

The average retail cash price per cwt. of the standard ration for the sixteen weeks' period ended 21st August, was 10/1¼d. This figure has been calculated by the Ministry from returns collected from 10 representative centres in Northern Ireland.

The following is the ration upon which the feeding cost is based:—

Maize Meal	30%
Barley Meal	30%
Pollards (White)	20%
White Bran	10%
Meat Meal (60% Protein)	10%

GRADING STATISTICS.

Table showing the percentages of pig carcases falling within the weight and grade classes indicated during July, 1937.

Under 1.0.21		c.1.0.21 to c.1.1.13				c.1.1.14 to c.1.2.3				Totals
Suitable	Unsuitable	Grade 1	Grade 2	Grade 3		Grade 1	Grade 2	Grade 3		
1.40	.19	2.58	1.71	1.12	.02	3.60	4.86	4.87	.02	20.37

Grade A.				Grade B.				Grade C.				
1	2	3	4	1	2	3	4	1	2	3	4	
7.55	17.05	3.49	.79	6.31	18.88	4.75	1.67	2.48	8.97	1.64	.55	74.13

Ungraded Carcases.						
Under Grade A measurements. U.L.	Over Grade C measurements U.F.	Wholly condemned U1.	Wholly black, injured or damaged U2.	Overweights, boars, sows, etc. X.	Partly Black Y.	
.03	3.62	.05	.47	1.30	.03	5.50
					Total	100%

These figures have been calculated from the purchase and grading statements which the curers furnish to the Ministry.

The average price paid to producers for pig carcases during the month of July works out at £5 10s. 8d.; the average weight at c.1 2q. 21lb.; and the average price of pork at £3 5s. 9d. per cwt.

MILK AND MILK PRODUCTS ACT (N.I.), 1934 AND 1936.

PENALTIES IMPOSED FOR MAKING FALSE RETURNS, PRICE-CUTTING AND UNLICENSED TRADING.

During the month of August, 1937, the Ministry found it necessary to institute legal proceedings against various persons for offences against the above-mentioned Acts and the Regulations made thereunder.

At Kilrea Petty Sessions the following fines were imposed:—

£5 in each of two cases for making false returns to the Ministry in respect of sales of milk.

£4 and £1 extra costs for purchasing milk at a price otherwise than that determined by the Joint Milk Council.

£4 and £1 extra costs for selling milk at a price other than that determined by the Joint Milk Council.

£2 in each of two cases for selling whole milk for human consumption without holding licences under the Milk and Milk Products Acts, 1934 and 1936.

At Belfast Petty Sessions fines of £5 and costs were imposed in each of two cases for selling whole milk for human consumption without holding licences under the above-mentioned Acts. Another milk vendor in Belfast was convicted and fined 10/- and costs on the 23rd August.

NEW MILK PRICES.

Printed below is an extract from the recent determination of the Joint Milk Council fixing the price of milk for the period 1st September, 1937-30th September, 1938.

In addition to the alterations which have taken place in the prices to be charged under the new determination, a number of important changes have been made in the prescribed form of contract, the more important of which are contained in the following provisions:—

(1) A delivery on any day of not less than 90% of the Contract Quantity for that day shall be a good delivery under the Contract;

(2) In the event of any day's delivery being below 90% of the Contract Quantity, the Vendor shall pay to the Purchaser a sum calculated at the rate of twopence per gallon upon the number of gallons by which the number of gallons supplied on that day falls short of 90% of the Contract Quantity. No fine shall be payable by the Vendor where on any day the Purchaser fails to accept any part of the quantity offered on that day;

(3) If on any day (such day not being the 25th December, 1937, 26th December, 1937, 18th April, 1938 (Easter Monday), 19th April, 1938 (Easter Tuesday), 12th July, 1938, or the 13th July, 1938), any part of that day's delivery be not accepted by the Purchaser, the Purchaser shall pay to the Vendor a sum calculated at the rate of twopence per gallon upon the number of gallons by which the number of gallons accepted on that day falls short of the Contract Quantity or the quantity offered, whichever is the less;

(4) In the event of any day's delivery being above the Contract Quantity, the Purchaser shall, subject as aforesaid, accept the milk up to the Contract Quantity, but, subject to the provisions of the Contract as regards the payment of 1d. per gallon extra for milk purchased in excess of 10% above the contract quantity, may reject or accept the excess;

(5) For any quantity of milk purchased on any day in excess of 10% above the contract quantity the price payable shall be 1d. per gallon more than the appropriate price provided for in the Determination;

(6) If the Purchaser shall at any time fail to pay any sum due by him to the Vendor on or before the fourth day after the due date then, and in that case, the Joint Milk Council may, if the Vendor has not already instituted proceedings for recovery of the said sum, institute proceedings in the name of, and on behalf of, the Vendor for the said sum, first giving notice to the Vendor of its election so to do, and the Vendor hereby assents to such proceedings being instituted on its behalf and in his name by the Council.

PART I. PRODUCERS' PRICES.

(1) During the periods specified hereunder milk of Grade A, Grade B, and Grade C, sold otherwise than in bottles or cartons by the holder of a Producer's licence (hereinafter referred to as the "Producer"), to the holder of a Distributor's licence (hereinafter referred to as the "Distributor"), shall be sold at the following prices for level quantities of not less than two gallons per day delivered at the distributor's premises:—

1st September, 1937, to 30th September, 1937, inclusive.

Grade A—not less than 1/2d. per gallon.
Grade B—1/- per gallon.
Grade C—1/- per gallon.

1st October, 1937, to 30th April, 1938, inclusive.

Grade A—not less than 1/5d. per gallon.
Grade B—1/3d. per gallon.
Grade C—1/3d. per gallon.

1st May, 1938, to 30th September, 1938, inclusive.

Grade A—not less than 1/3d. per gallon.
Grade B—1/1d. per gallon.
Grade C—1/1d. per gallon.

(2) The above prices are payable for the daily quantity which the distributor has contracted in pursuance of the provisions of this Determination to purchase from the producer, plus an additional 10%. The price payable for quantities purchased on any one day in excess of 10% above the contract quantity shall be at the rate of 1d. per gallon more than the appropriate price fixed above.

(3) Where milk is bottled by the Producer the Distributor shall pay to the Producer not less than 1½d. per gallon in respect of this service, bottles and caps being supplied by the Distributor.

(4) The above prices are subject to a deduction in respect of carriage (hereinafter referred to as a "Collecting Charge"), when this service is performed by the Distributor.

(5) The maximum collecting charges which may be deducted from the above prices are as follows:—

(a) When the distance between the Distributor's premises and the point at which the milk is collected or the Producer's Farm (whichever is the nearer to the Distributor's premises)—

	per gal.
does not exceed 5 miles	¾d.
exceeds 5 miles but does not exceed 10 miles ...	1d.
exceeds 10 miles but does not exceed 15 miles ...	1½d.
exceeds 15 miles but does not exceed 20 miles ...	1½d.
exceeds 20 miles but does not exceed 25 miles ...	1¾d.
exceeds 25 miles but does not exceed 35 miles ...	2d.
for each 10 miles or part thereof in excess of 35 miles an additional charge of	½d.

(b) Where the Distributor's premises are situated in the County Borough of Belfast, the scale of maximum collecting charges set forth above shall apply with the substitution of the City centre for the Distributor's premises.

(c) Where milk is delivered by rail to Belfast County Borough so as to arrive after 9-30 a.m., the Distributor may deduct ¼d. per gallon from the price payable to the vendor, in addition to any collecting charge which may be deducted in respect of the carriage of the milk by the Distributor from the railway terminus in Belfast County Borough to his premises.

PART II. SALE BY CONTRACT.

(1) From the 1st day of September, 1937, until the 30th day of September, 1938, inclusive, all milk of Grade A, Grade B, or Grade C, sold by a Producer to a Distributor in quantities of not less than two gallons per day shall be bought and sold under contract, duly registered by the Joint Milk Council (hereinafter referred to as "the Council"). Subject to the provisions of Section Seven of the Milk and Milk Products Act (Northern Ireland), 1934, all such contracts shall be in the prescribed form or in a form to a like effect, and

the terms of such contracts shall be in accordance with the provisions of Part I of this Determination entitled "Producer's Prices". All such contracts shall be submitted to the Council for registration and shall be void and unenforceable until so registered.

(2) Subject to the provisions of Section Seven of the Milk and Milk Products Act (Northern Ireland), 1934, the Council may refuse to register a Contract which is not in accordance with the aforesaid terms or in the prescribed form.

(3) The Council may refuse to register a contract if one of the parties thereto has previously been a party to a contract registered with the Council, which has been determined by reason of the non-fulfilment by that party of the terms of the said registered contract.

(4) The Distributor shall, at the time when payment is being made to the Producer for milk supplied under contract, forward to the Producer and to the Council a statement showing the period and the number of gallons to which the payment relates.

PART III. RETAIL PRICES.

(1) Subject to the provisions of Section Seven of the Milk and Milk Products Act (Northern Ireland), 1934, milk of Grade A, Grade B and Grade C, sold by retail or to a Distributor by a Producer in quantities of less than two gallons per day, and delivered to the purchaser in the following areas in Northern Ireland shall, during the periods indicated, be sold at the following prices:—

(a) In the County Boroughs of Belfast and Londonderry, the Borough of Bangor, the Urban Districts of Carrickfergus, Holywood, Lisburn, Newtownards, the Rural Districts of Belfast and Castlereagh, the portion of the Hillsborough Rural District comprised in the District Electoral Division of Breda, the portions of the Larne Rural District comprised in Eden town, the District Electoral Division of Carrickfergus Rural and the townland of Kilroot, the portions of the Lisburn Rural District comprised in the District Electoral Divisions of Dunmurry, Lambeg and Malone:

(i) from the 1st day of September, 1937, to the 30th day of September, 1937, inclusive, and from the 1st day of May, 1938, to the 30th day of September, 1938, inclusive.

Milk of Grade A—not less than 2/- per gallon.

Milk of Grade B—1/10d. per gallon.

Milk of Grade C—1/8d. per gallon.

(ii) from the 1st day of October, 1937, to the 30th day of April, 1938, inclusive.

Milk of Grade A—not less than 2/2d. per gallon.

Milk of Grade B—2/- per gallon.

Milk of Grade C—1/10d. per gallon.

Provided that milk sold by retail in bottles containing not more than one-third pints may be sold at not less than 1/8d. per gallon.

(b) In the Borough of Coleraine, and the Urban Districts of Armagh, Ballymena, Ballymoney, Banbridge, Dungannon, Enniskillen, Larne, Lurgan, Newry, Omagh, Portadown and Strabane:

(i) from the 1st day of September, 1937, to the 30th day of September, 1937, inclusive, and from the 1st day of May, 1938, to the 30th day of September, 1938, inclusive.

Milk of Grade A—not less than 1/10d. per gallon.

Milk of Grade B—not less than 1/8d. per gallon.

Milk of Grade C—not less than 1/6d. per gallon.

(ii) from the 1st day of October, 1937, to the 30th day of April, 1938, inclusive.

Milk of Grade A—not less than 2/- per gallon.

Milk of Grade B—not less than 1/10d. per gallon.

Milk of Grade C—not less than 1/8d. per gallon.

(c) In the Urban Districts of Ballycastle, Donaghadee, Newcastle, Portrush, Portstewart, Warrenpoint and Whitehead:

from the 1st day of September, 1937, to the 30th day of September, 1938, inclusive.

Milk of Grade A—not less than 2/- per gallon.

Milk of Grade B—not less than 1/10d. per gallon.

Milk of Grade C—not less than 1/8d. per gallon.

(d) In all other areas in Northern Ireland:

(i) from the 1st day of September, 1937, to the 30th day of September, 1937, inclusive, and from the 1st day of May, 1938, to the 30th day of September, 1938, inclusive.

Milk of Grade A—not less than 1/8d. per gallon.

Milk of Grade B—not less than 1/6d. per gallon.

Milk of Grade C—not less than 1/4d. per gallon.

(ii) from the 1st day of October, 1937, to the 30th day of April, 1938, inclusive.

Milk of Grade A—not less than 1/10d. per gallon.

Milk of Grade B—not less than 1/8d. per gallon.

Milk of Grade C—not less than 1/6d. per gallon.

(2) Exceptions:

(a) (i) A daily quantity of not less than two gallons of milk of Grade A or milk of Grade B in bottles or cartons or of milk of Grade C may be sold to one consumer at not more than 4d. per gallon less than the appropriate retail price.

(ii) A daily quantity of not less than two gallons of milk of Grade A or milk of Grade B in sealed churns may be sold to one consumer at not more than 6d. per gallon less than the appropriate retail price.

(iii) Milk sold by retail and collected by the purchaser from the vendor's premises may be sold at not more than 4d. per gallon less than the appropriate retail price,

provided that in no case may milk be sold at less than the appropriate producer's price fixed by Part I of this Determination.

(b) Milk of Grade A, Grade B, or Grade C, sold for the purpose of the manufacture of ice cream to a person whose main business is the manufacture and sale of ice cream, may be sold at not less than one penny per gallon more than the appropriate producer's price fixed by Part I. of this Determination.

(c) Milk sold to public hospitals may be sold at not less than the appropriate producer's price fixed in Part I. of this Determination.

(d) Milk sold to an education authority within the meaning of the Education Acts (Northern Ireland), 1923 to 1936, for the purpose of a scheme for the provision of meals for children in attendance at public elementary schools within the education area, or to a nursery school recognised by the Ministry of Education under the Education Acts (Northern Ireland), 1923 to 1936, may be sold at not less than the appropriate producer's price fixed in Part I. of this Determination.

NEW MILK REGULATIONS.

The Ministry has made new Regulations providing that where milk is sold under contract the producer and distributor must furnish returns not later

than *three* days after the expiration of the calendar month to which they relate. Such returns must be day-to-day returns instead of monthly returns as formerly.

Furthermore, distributors will be required, when making a payment for milk purchased under contract, to forward to the producer and to the Council a statement showing the period and number of gallons to which the payment relates. Producers should insist on being furnished with monthly or weekly statements of milk sold by them to their distributors, and, in the event of any distributor failing to furnish such a statement, the producer should notify the Ministry without delay.

THE CATTLE INDUSTRY (EMERGENCY PROVISIONS) ACTS, 1934 AND 1935.

The latest information to hand shows that the total amount of payments made under the Acts to Northern Ireland owners up to and including 21st August, 1937, was £746,283 8s. 10d., and was in respect of 357,644 animals sold on a live-weight basis. These figures compare with a sum of £2,452,534 19s. 7d. for 1,003,067 animals in Scotland, £7,763,595 4s. 5d. for 3,282,461 animals in England and Wales, and a total sum of £10,962,413 12s. 10d. for 4,643,172 animals for the whole of the United Kingdom.

The average payments made per head of cattle were as follow:—Northern Ireland, £2 1s. 9d.; Scotland, £2 8s. 11d.; England and Wales, £2 7s. 4d.; and for the whole of the United Kingdom, £2 7s. 3d.

According to a recent statement received from the Livestock Commission of the number of animals in each grade in respect of which payments were made, under the new scheme up to and including the 21st August, 1937, about 1 in every 18 animals certified in Northern Ireland were awarded the quality subsidy of 7/6d. per cwt. A negligible percentage of the Northern Ireland stock certified for the quality subsidy were imported.

AGRICULTURAL NOTES.

SEASONAL FARM NOTES.

Land Fertility Scheme.—The Land Fertility Scheme is now in operation and farmers are strongly advised to avail themselves of its provisions and thereby obtain supplies of lime and of basic slag at reduced rates. While it is true that the majority of fields in Northern Ireland, irrespective of the nature of the soil, will benefit from a drsesing of lime, it is, in the case of sour, retentive and peaty soils particularly, that lime is essential for maintaining fertility. Liming is also necessary on land where crops, such as barley and turnips do not succeed, where the pasture is deficient in clovers and where turnips are attacked by "finger and toe" or club root disease. A dressing of about 2 tons of burnt lime per statute acre will improve soil conditions, enable crops to make full use of manures, assist in preventing disease and result in heavier yields being obtained.

Basic slag is of particular value for application to grassland because of its phosphate content and a dressing of from 6 to 8 cwt. per statute acre will not only increase the stock carrying capacity of the pasture by promoting the growth of good grasses and of clovers, but also indirectly benefit the grazing stock by making the pasture more nutritious. This manure, since it is slow in action, must be applied during autumn or early winter to produce a beneficial effect the following year. If slag is not applied until late winter or early spring there will not be sufficient time before the growing season begins for the phosphate it contains to become suitable for the feeding of the pasture plants.

It is important to realise, however, that the use of basic slag alone may not produce full results on certain classes of soils. For example, on light soils the application of 1 cwt. 30 per cent. potash salts per statute acre in addition to the quantity of slag mentioned above is necessary to obtain the maximum effect on the pasture. Furthermore, other phosphatic manures such as Gafsa rock phosphate and Semsol may be even more suitable than basic slag on certain classes of soils. As a general rule basic slag is the most satisfactory source of phosphate for heavy, clayey, retentive and peaty soils, and Gafsa rock phosphate and Semsol for the lighter and more friable soils.

It is necessary, therefore, before purchasing supplies of either lime or of basic slag to consider which fields on the farm are most in need of lime and phosphate, and also the type of phosphatic manure which will be most suitable. The Agricultural Instructors and Overseers will advise regarding liming and manuring of land and on other matters relating to the Scheme. Full advantage should be taken of this service so that the maximum benefits

from the Scheme may be obtained. Further particulars regarding the Scheme are given on page 226, and a list giving the names and addresses of the Secretaries and Agricultural Organisers of the various County Committees of Agriculture, to whom enquiries for advice from the Instructors and Overseers should be sent, is given on page 250.

Grain Crops.—The harvesting of these crops will occupy chief attention at this time. Carting and stacking of the crops should be carried out as soon as possible after the sheaves are in a fit condition, as prolonged exposure in stooks will inevitably cause much damage and loss. It is a wise plan to build stacks of grain crops on stands about 2 ft. 6 ins. high to prevent rats and mice from gaining access to them. The stacks should be thatched as soon as possible after being built as otherwise waste may occur should wet weather supervene; thatching should not be done when the stacks are very wet.

Should periods of broken weather occur when the sheaves are in the stooks, the "hutting" of oats and barley in the fields is strongly recommended. A field of stooks can be "hutted" very rapidly and when the "huts" are well built the grain is protected and the butts of the sheaves will dry out better that when the sheaves are left in stooks. Moreover, carting from "huts" may be done during weather that would preclude doing so from stooks.

Hay.—Crops of hay still remaining in field "ricks" should be carted and stacked at the earliest opportunity. Undue loss occurs when the "ricks" remain for prolonged periods in the fields and, besides, cattle cannot be turned on to the aftermath in time to make full use of it before the grazing season ends.

Potatoes.—The lifting and storing of early and second-early crops of potatoes should be carried out as soon as possible now. The separation of the saleable potatoes from the chats and diseased tubers at lifting time is strongly recommended. It is a practice that does not involve much extra labour and is well worth while. If storing in pits is practised the potatoes should be well thatched with a layer of straw before earthing up is done so as to ensure that they will be in a clean dry condition when lifted. Rushes should not be used for thatching potato pits, as this practice may lead to the seeds of rushes being spread and ultimately to the appearance of these weeds in the field. Potato stalks should on no account be used for covering pits of potatoes temporarily until final earthing up is done. This practice frequently results in the spread of disease throughout the pit and in many of the tubers rotting during storage. A light covering of straw is all that is required to protect the potatoes from damage until earthing up is completed.

The seed for next season's crop may be selected and placed direct into sprouting boxes at lifting time. The boxing of seed potatoes has been shown to result in heavier yields and in the production of cleaner crops.

MANGELS.—Crops of mangels should be lifted and stored before night frosts appear. The clamp should be made convenient to the farmyard and covered with a thick layer of dry ditch cuttings or old grass.

LEA GROUND.—Lea ground intended for ploughing should be kept closely grazed from this time of year onwards and all rough clumps of grass cut off. This practice will be of particular value on farms where attacks of leather jacket grubs in corn crops are feared as the parents of the grubs lay their eggs in grass clumps. If, therefore, the pasture is closely grazed and no clumps left growing, the risk of leather jacket grub attack in the lea oats will be lessened.

PASTURE.—Fields on which grass has shot, or on which there are coarse tufts of uneaten grass appearing, should be top mowed when time permits. Top mowing will not reduce the amount of keep to any great extent but will encourage the growth of bottom grasses and provide useful succulent grass towards the end of the grazing season. In addition, a final run of the chain harrow for the season is well worth while as it will spread the animals' droppings and thus prevent the growth of unpalatable coarse tufts in the pasture next season.

SEASONAL LIVESTOCK NOTES.

SHEEP.—The selection of the sheep intended for breeding purposes is of particular concern at this time. The importance of using a good ram was stressed in last month's Report. The ram is "half the flock" and a satisfactory crop of lambs of good quality cannot be expected if a ram of mediocre quality is used. Readers are reminded that a premium scheme for Border Leicester rams is in operation in all counties and farmers in the vicinity of premium holders should take advantage of the opportunity of having some of their ewes mated with these superior rams at a small service fee. It should also be noted that County Committees of Agriculture give monetary assistance to selected black face sheep breeders to purchase high grade rams for mating with their flocks. Further information regarding these Schemes can be obtained from the Secretary of the Committee of Agriculture for the County.

The use of sound, healthy ewes with good mouths and udders for breeding purposes is also essential for good results. The ewes should be carefully examined now and animals unfit for breeding purposes specially marked for disposal. Farmers wishing to introduce fresh blood to their flocks should note that breeding sheep will be admitted into Northern Ireland from certain sheep sales in Scotland during September and October. Particulars regarding these sales and of the conditions relating to importation are given on page 251 of this Report.

Recognition of Service Dates.—Before turning the ram with the ewes, the wool around the tails of the latter should be clipped; and the breast of the ram smeared with keel or other colouring matter so that the date of service may be known. The colouring material should be mixed with lard or grease and not with oil, as the latter, besides damaging the fleece, will harden and become useless. When mixed with lard or grease, however, the keel remains soft and one application lasts a long time. By changing the colour of the keel every third week ewes returning to service can be recognised and the period during which lambing will take place can be noted. This practice is also useful in ascertaining in good time if the ram is fertile.

"Flushing" of Ewes.—Best lambing results are usually obtained from ewes which are in a forward condition at mating time so that, if possible, a change from moderately poor conditions to those which encourage a state of thriving should be made. A field of aftermath is excellent for turning the ram and ewes on to during the mating season and, if available, should be used for that purpose. Before the flock is turned on to aftermath the fences requiring repair should be put in order and the hedges trimmed and briars cut. Good fences will prevent the habit of "breaking" becoming established, while the trimming of hedges and ditch backs will prevent injury from briars and thorns.

Feeding of Ram.—Where the ram is running with a large number of ewes supplementary feeding should be given to the ram so that he may be maintained in a fit breeding condition. A pound of good quality of oats daily is useful for this purpose.

Liver Fluke Disease.—Preventive measures should be taken early to guard against possible losses from liver fluke disease. Full particulars of the measures recommended for controlling this disease are given in Leaflet No. 24. Useful hints on the general care and management of sheep are given in Leaflets Nos. 47 and 63.

"Husk" or "Hoose" in Cattle.—This ailment already appears to be prevalent in cattle this season and precautionary measures should be adopted in good time in districts where attacks are liable to occur. Housing the animals at night, grazing on fresh, clean pasture, such as aftermath, combined with good feeding, are the best methods of prevention. A mixture of equal parts crushed oats, maize meal and decorticated earthnut cake, or of two parts crushed oats or maize meal and 1 part linseed cake, forms a good meal ration for young cattle. An allowance of about 3 lbs. per head daily of one or other of these mixtures should be given. Useful information on the control of "husk" or "hoose" is given in Leaflet No. 80.

Fattening of Cattle.—Cattle intended for fattening during the coming winter should be given an allowance of meals on the grass. A suitable

meal mixture is 2 parts by weight crushed oats, 1 part by weight maize meal and 1 part by weight decorticated earthnut cake. This should be fed at the rate of about 3 lbs. per head daily.

Feeding of Milk Cows.—The feeding of an allowance of meals to dairy cows to maintain milk yields is necessary since at this time of year grass has lost much of its feeding value. Leaflet No. 16 gives examples of suitable meal mixtures to use for this purpose. Cabbages, if available, provide a useful aid in maintaining milk yields when the grass becomes scarce and will lessen the expenditure on purchased feeding stuffs.

Pigs.—Potatoes, which are now selling at cheap rates, can with advantage be included in pig rations. Potatoes are rich in carbohydrate or starch material, but have a very low protein content. For this reason it is necessary when potatoes are being fed to increase the quantity of milk or of milk substitutes in the ration. Potatoes should be fed to pigs in the cooked state.

Particulars of suitable meal mixtures to feed along with potatoes are given in Leaflet No. 35. It is important to note that excessive quantities of potatoes should not be fed to fattening pigs as, if fed to excess, potatoes tend to produce pot-bellied pigs, besides having a deleterious effect on the quality of the carcase. Not more than 12 lbs of potatoes per pig daily should be fed at any stage of fattening.

SEASONAL GARDEN AND ORCHARD NOTES.

Cabbage Planting.—Preparations should now be made for planting out cabbage plants raised from seed sown in July. The plants should, if possible, be in their permanent positions before the end of September and be planted in soil which is moderately firm and not over rich. Ground from which early potatoes have been taken is usually quite suitable for cabbage without the addition of any further manure.

Cauliflowers.—Cauliflower plants raised from seed sown in August should now be transplanted into frames for overwintering. The lights need not be placed in position until later, but the plants should be protected before frost appears. During the winter the frames should be freely ventilated on all favourable occasions and all tendency to coddling should be avoided as the hardier the plants are grown the better the crop will be.

Celery.—Maincrop celery should now be ready for earthing up. This work should be done on three or four occasions when the plants are dry and the soil moderately so. Too much soil should not be placed around the plants at any one time and care must be taken to ensure that none of the

soil gets into the centre of the plants. A period of from 14 to 21 days should elapse between each two mouldings. The plants should be sprayed about every fourteen days with Burgundy Mixture (1 lb. Bluestone, 1½ lbs. Washing Soda, 10 gallons water) to protect them against celery leaf blight. A careful watch should be kept for signs of the celery-fly maggot. Much can be done to control this pest if in the early stages of attack the affected leaves or portions of leaves are taken off and destroyed.

Winter Lettuce.—Lettuce plants raised from seed sown last month should now be ready for transplanting. A second transplanting should be made about a fortnight after the first. Where glasshouses are available these can be turned to profitable account by growing winter lettuce. If seeds of a suitable variety such as Cheshunt Early Giant are sown in early October in shallow boxes of soil, and the seedlings pricked out early it should be possible to have plants fit for cutting shortly after Christmas. Considerable care in the cultivation of winter-grown lettuce under glass is necessary but during the spring good prices are usually obtainable for well-grown stuff.

Strawberries.—The planting of strawberries as advised in last month's notes should be completed with as little delay as possible.

Picking and Storing of Apples.—Preparations should be made for the picking and storing of the late apple crop. Ladders and picking bags and buckets should be put in good repair and the store houses should be cleaned out and all dust and debris removed. Bad storage, under which good clean apples become soiled, is one of the main causes of poor prices being obtained in this country for what was good fruit when harvested. Each year the store should be thoroughly cleaned down some time before the fruit is placed in it. The walls should be given a coat of whitewash and the wood work scrubbed with a strong solution of washing soda. A final washing down with a solution of bluestone (2 lbs. in 10 gallons of water) may be given. This solution not only helps to preserve the wood work but reduces the risk of fungus diseases spreading on the fruit while it is in store. The storage cases should also be treated with the bluestone solution after they have been repaired, where necessary. If additional storage cases are required these should be ordered early so that the makers may have them ready before picking commences. During picking the greatest care should be taken to avoid bruising the fruit. All receptacles in which the apples are picked from the trees should either be of soft material or lined with some soft material. Before being stored, the sound unblemished apples should be roughly separated into two or three grades according to size. The badly-diseased and unsound fruit should not be brought into the store.

The fruit should be dry when placed in the store, and for the first three or four weeks full ventilation should be given so that the moisture given off by the newly picked fruit may be dispelled. The new method of storing apples in atmosphere controlled stores (commonly known as "gas" stores) is being increasingly employed by cross-Channel growers and it would seem that if Northern Ireland growers wish to hold a place on the British market, they will have to adopt similar methods.

Flowers.—Chrysanthemum plants grown in pots out-of-doors during the summer should be placed under glass not later than the first week of October. Ample ventilation should be given.

Bees.—Owing to the unfavourable weather during the past season most stocks of bees are short of food for the winter. If the bees are to survive until next year, stocks which are short of food should be fed during the autumn. Syrup made by dissolving 5 lbs. best quality white sugar in one quart of water may be given until the end of September.

SEASONAL POULTRY-KEEPING NOTES.

Culling of Pullets.—Rigorous culling is an essential practice in successful poultry-keeping and before the winter egg-production season commences the pullet flock should be closely examined so that any birds which show any undesirable feature may be removed and disposed of. It is a great mistake to retain all the pullets reared, irrespective of their type and suitability for egg production purposes. Birds which are lacking in vigour, are deformed in any way, or are poorly developed are never likely to be profitable egg producers. Moreover, they are more liable to contract ailments and diseases than vigorous healthy birds and are also restricting the accommodation available. Such birds are best removed from the flock and sold for table purposes. The age at which the pullets mature should also be noted, as those which commence laying at a very early age are usually small-bodied, extremely active birds, which lay a large number of small-sized eggs. These birds should also be culled out or marked with distinctive rings, so that they may be disposed of after laying during the winter period. On no account should they be retained for breeding purposes. The best layers and most desirable birds in the flock are generally those which come into production after those which start first, but before the remainder of the birds have begun to lay. Useful hints on the culling of pullets are given in Leaflet No. 29.

Feeding of Pullets.—The pullets should now be in their laying quarters, and be fed to encourage laying, but not unduly forced. If separated milk

is available, there is nothing better for bringing slowly maturing pullets into lay than a mash made up of ordinary cereals wet with separated milk. A mash consisting of:—

4 parts by weight pollards or sharps
2 ,, ,, ,, bran
2 ,, ,, ,, maize meal
1 part ,, ,, Sussex ground oats,

has given good results for use along with separated milk. If milk is not available, 1 part by weight white fish meal or high grade meat meal, or 1½ parts by weight extracted soya bean meal should be added to the above mixture. Where extracted soya bean meal is used as the milk substitute it is necessary to add a mineral mixture consisting of 2 parts by weight ground limestone and 1 part by weight common salt, at the rate of 2 lbs. to each cwt. of meal mixture. Further examples of suitable meal mixtures to use for egg production purposes are given in Leaflet No. 3.

Provision of Shell-Making Material.—A constant supply of shell-making material in the form of oyster shell or of limestone grit, or a mixture of both, should be provided at all times. Unless hens are given the requisite materials for shell making, thin shelled eggs will be laid or the birds will eat their eggs. The habit of egg eating is easily acquired and is very difficult to cure.

Water Supply.—A plentiful supply of clean water is necessary if the pullets are to be kept healthy and productive throughout the winter. A defective or irregular supply of water will cause a serious decline in egg production and may even induce moulting. Where dry mash is being fed, the water supply should be placed convenient to the dry mash hopper. This arrangement encourages the consumption of mash and aids production, especially in winter. Where milk is given as the chief source of protein, it is necessary to restrict the water supply so as to ensure that the birds drink sufficient milk.

Selection of Breeding Stock.—If not already done, the selection of hens for next year's breeding flock should be carried out as soon as possible. The importance of retaining only the best birds for breeding purposes may again be emphasised. Hens showing lack of constitutional vigour, any deformity or abnormality should be discarded, as should the undersized birds and those which have lost weight during the pullet year. Such birds, if retained for breeding, are a hindrance to progress being made in the development of a healthy, vigorous and productive strain, irrespective of what their egg records may be.

Cockerels for next season's breeding flock should also be chosen as soon as possible, as a better selection of birds can usually be obtained early in the season. Good size and outstanding constitutional vigour are the principal considerations in the selection of cockerels. Under-sized, fine-boned male birds should never be chosen for breeding as they usually produce under-sized and weakly offspring which are difficult to rear.

Management of Birds Selected for Breeding.—Hens which have been selected for breeding and which have not as yet ceased laying should be encouraged to do so by giving them a complete change of ground and feeding, so that they may moult, take a rest from laying and be in a suitable condition to produce eggs early in the hatching season. Mash should not be given but only a grain mixture of whole oats and wheat, or oats alone. Two feeds of grain daily will suffice and the quantity given at each meal should be such that the birds are hungry for the next feed. The object should be to get the birds to moult as soon as possible. When moulting is general the flock should be placed on stubble ground, if available, as soon as it is cleared. Generally, grain feeding will not be necessary for some time after the birds are placed on the stubbles as they will find sufficient for their needs. A daily feed of mash, consisting largely of bran but containing no protein supplements, such as fish meal, should, however, be given, while an ample supply of clean drinking water should be provided at all times. Further hints on the feeding and management of the breeding stock are given in Leaflet No. 83.

Turkeys.—Turkey flocks should be turned on to the stubbles as soon as these are available. Stubble ground will provide fresh clean range for the birds and will reduce the amount of feeding necessary. As soon as the birds show signs of coming home hungry, additional feeding each morning and evening will be necessary.

ANNOUNCEMENTS AND REMINDERS.

GENERAL.

Winter Agricultural Classes.—The centres provisionally selected by the County Committees of Agriculture mentioned, for Winter Agricultural classes to be held during the coming season are:—

County Armagh:—Cavanbellaghy (Knappagh), and Ballylane (Glenanne, or Tullyheron (Mountnorris).

County Fermanagh—Knockaraven (Derrylin) and Tubrid (Kesh).

County Londonderry:—Garvagh and Articlave.

Particulars regarding the duration of these classes, along with a syllabus showing the subjects dealt with are given in Leaflet No. 60. As only a limited number of pupils can be admitted to each class, those desirous of attending should make early application to the Secretary or Agricultural Organiser of the County Committee of Agriculture, or to the Agricultural Instructor.

Training for Girls.—The next session at the Ulster Dairy School, Cookstown, and at the North West School, Strabane, begins on the 12th October. Further particulars regarding the courses of instruction provided at these Schools are given on page 250.

Greenmount College.—The next session at Greenmount Agricultural and Horticultural College begins on the 12th October.

Autumn Sheep Dipping.—The autumn sheep dipping period extends this year from the 4th October to the 12th November. During this period all sheep must be double dipped, allowing an interval of not less than seven or more than fourteen days between the two dippings.

Accredited Poultry Farms.—Poultry keepers who wish to have their names included in the Ministry's Register of Accredited Poultry Farms should make application not later than the 30th September next. Information relating to this Scheme is given on page 252.

Show and Sale of Utility Poultry.—Poultry keepers intending to purchase breeding stock are reminded of the Show and Sale of utility poultry which will be held under the auspices of the Royal Ulster Agricultural Society at Balmoral, Belfast, on Thursday, 23rd September. Classes will be provided

for copper-ringed hens, for cockerels, hens and pullets bred from copper-ringed hens at official breeding stations and for general utility poultry. Cockerels which are of the standard required for poultry stations will be selected by the Ministry and premium cards will be displayed on the pens occupied by the birds so selected. The county poultry-stations Scheme now provides for increased premiums being payable in respect of those stations on which one or more cockerels which are bred at official breeding stations are being used.

LEAFLETS.—Copies of the leaflets issued by the Ministry are obtainable free on request.

NAMES AND ADDRESSES OF SECRETARIES AND AGRICULTURAL ORGANISERS OF COUNTY COMMITTEES OF AGRICULTURE.

County.	Name and Address of Secretary or Organiser.
Antrim ..	A. B. Clarke, B.A. (Secretary), Courthouse, Crumlin Road, Belfast.
Armagh ..	S. Jordan, B.Agr. (Organiser), Russell Street, Armagh.
Down ..	J. L. McWhinney, B.Sc., A.R.C.Sc.I. (Organiser), Northern Bank Chambers, May Street, Belfast.
Fermanagh ..	W. T. McClintock, B.Agr. (Organiser), Courthouse, Enniskillen.
Londonderry ..	T. K. Caldwell (Secretary), Courthouse, Coleraine.
Tyrone ..	W. Walsh (Secretary), Courthouse, Omagh.

TRAINING OF GIRLS IN POULTRY KEEPING, DAIRYING, ETC.

The next session at the North-West School, Strabane, and the Ulster Dairy School, Cookstown, will open on the 12th October. Early application for admission to either School is essential. Admission to the North-West School, at which there is accommodation for 24 pupils, is by Scholarships provided by the County Committees of Agriculture. Application for these Scholarships, which include free tuition, board and residence, should be made to the Secretary or Agricultural Organiser to the Committee of Agriculture for the county in which the applicant resides.

The Ulster Dairy School, which has accommodation for 50 pupils, is situated at Loughry, Cookstown, County Tyrone, and provides the most up-to-date training in all matters connected with woman's sphere in farm life. The fees for the ordinary school course of three terms are £3 3s. 0d. per term,

and application for admission to this School should be made direct to the Ministry's offices.

Prospectuses of both Schools, containing application forms, may be obtained from the Ministry on request.

IMPERIAL FRUIT SHOW AND CANNERS' EXHIBITION, 1937.

The Imperial Fruit Show and Canners' Exhibition will be held this year in Bingley Hall, Birmingham, from October 20th to October 28th. Much valuable information in regard to the production, packing and marketing of fruit may be gained from a visit to the Show, and in this connection it may be of interest to Northern Ireland fruit growers to learn that Northern Ireland grown Bramley apples were awarded prizes last year in the United Kingdom section of the Show in the classes for packed apples. It is understood that Northern Ireland growers are again competing in these classes this year.

IMPORTATION OF SHEEP INTO NORTHERN IRELAND FROM SCOTLAND.

The Ministry of Agriculture for Northern Ireland announces that, provided no unforeseen circumstances arise, it will be prepared to admit breeding sheep from the undernoted sales to be held in Scotland during September and October, subject to the salesmasters conducting the sales complying with certain conditions laid down by the Ministry.

An officer of the Ministry will be in attendance for the purpose of issuing permits for the importation into Northern Ireland of animals purchased, and before making any purchases persons from Northern Ireland should get into touch with him in the saleyard.

These facilities are intended only for breeders who wish to retain the animals purchased at the sales for breeding purposes. All animals imported must be moved directly from the Northern Ireland port of landing to the farms to which they are licensed, where they are to be isolated and detained for a period of not less than 14 days.

It should be understood that these arrangements may be either modified or cancelled at any time if, in the opinion of the Ministry, the disease position in Great Britain should warrant the adoption of either course.

Persons interested should, if possible, communicate with the Ministry before going to the sales.

1. **Lawrie & Symington, Lanark.**
   - 15th September .. Border Leicester Lamb Rams, Ewes, Gimmers and Ewe Lambs.
   - 28th and 29th September — Blackface Ewes, Leicester and Down Rams, and Blackface Gimmers.
   - 12th October .. Blackface and Cheviot Ewes and Gimmers, and Border Leicester and Down Rams.
   - 15th October .. Blackface Rams and Lamb Rams.
2. **Lawrie & Symington, Peebles.**
   - 23rd and 24th September — Blackface and Cheviot Ewes.
3. **J. Craig, Ltd., Ayr.**
   - 23rd and 24th September — Blackface and Cheviot Hill Ewes and Lambs.
   - 30th September .. Ayr Ram Society's Show and Sale—Border Leicester, and Blackface Rams and Lambs.
   - 1st October .. Blackface and Cheviot Hill Ewes.
4. **McDonald, Fraser & Co., Ltd., Perth.**
   - 6th October .. Blackface and Cheviot Hill or Uncrossed Ewes.
   - 13th October .. Blackface Rams and Ram Lambs, Leicester and Down Rams, Leicester Ram Lambs.
5. **Live-Stock Marts, Ltd., Stirling.**
   - 1st October .. Blackface Shearling Rams and Ram Lambs.
   - 5th October .. Uncrossed Blackface Ewes.
   - 12th October .. Uncrossed Blackface Ewes.

REGISTRATION OF ACCREDITED POULTRY FARMS.

Poultry breeders who intend to apply to have their farms registered for the 1937/1938 hatching season are reminded that the last day for the receipt of applications in the Ministry is the 30th September, 1937. Copies of the prescribed form of application and of a leaflet giving full particulars regarding the conditions with which applicants for registration and registered breeders must comply, may be obtained free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

FIFTEENTH EGG-LAYING TEST AT STORMONT.

FINAL RESULTS.

The twelfth and last four-weekly period ended on the 2nd September, and the birds, other than those which were entered for the Northern Ireland Breeding Station, were returned to their owners on the following day. In the tables hereunder are given some preliminary particulars of the results, but a full report on the test is in course of preparation and will be published in due course.

The average total egg-production, based on the 864 birds originally penned and making no allowances for deaths, was 184.2 eggs per bird, while the average of scoring eggs, that is eggs of 2 oz. and over in weight laid during the 48 weeks of the test, was 161.5 per bird. Thus, 87.6 per cent. of all the eggs produced were of 2 oz. or more in weight. The flock average in the previous test was 176.5 eggs per bird. During the final period of four weeks, fifteen

further birds died, making a total of 90 deaths during the 48 weeks the test was in progress. This represents a mortality of 10.4 per cent. which is 1.5 per cent. less than the rate for the previous test.

The following table gives particulars of average total production per bird, proportion of scoring eggs per bird, and rate of mortality in respect of the various sections of the test.

Section.	No. of birds originally penned.	Average Total egg Production.	Proportion of scoring eggs.	Percentage Mortality.
1. White Wyandottes ..	168	192.3	89.5	8.9
2. White Leghorns ..	78	176.3	87.3	19.2
3. Rhode Island Reds ..	186	188.8	91.5	5.9
4. Any other pure breed ..	96	182.7	82.5	5.2
5. (*a*) Stationholders', White Wyandottes ..	84	194.4	82.2	14.3
5. (*b*) Stationholders', White Leghorns ..	60	178.6	85.5	11.7
5. (*c*) Stationholders', Rhode Island Reds ..	120	183.4	90.3	7.5
6. Poultry Clubs and Young Farmers' Clubs ..	72	158.0	83.5	22.2

The White Wyandottes have done best from the egg-production point of view. In both the open section and in the stationholders' section the birds of this breed have given a flock average of over 190 eggs per bird, which is a very marked increase over the average for the breed in the previous test. The Rhode Island Reds in Section 3 are next best, followed by the Rhode Island Reds in Section 5(c). The average production from the White Leghorns in both Section 2 and Section 5(b) is comparatively low but considerably better in the case of Section 5(b) than it was in the previous test.

The size of egg, generally, was satisfactory, as can be seen from the column of the table which gives the proportion of scoring eggs. In no section was the proportion of non-scoring eggs, that is, eggs below 2oz. each in weight, more than 18 per cent.

Except in the Clubs Section, Section 2 (White Leghorns) and Section 5(a) (Stationholders' White Wyandottes) the rate of mortality has been reasonably low. It is encouraging to be able to record a very marked reduction in the rate of mortality amongst the White Leghorns in the Stationholders' Section, but it is regretted that the death rate in the case of the White Leghorns in Section 2 has risen sharply. There is a welcome reduction in the mortality rate amongst the White Wyandottes in Section 1, but this is offset by the increase in the death rate amongst the birds of the same breed in Section 5(a) ; this increase has, however, been due to excessive mortality in a few

pens only. The mortality in the case of the Light Sussex has again been very low, while the Rhode Island Reds in both the open section and the station-holders' section have also come through the test with comparatively few losses.

The following are particulars of the leading pens in the different sections :—

SECTION 1. WHITE WYANDOTTES (OPEN). 28 pens.

Position.	No. of pen.	Name and Address of Owner.	No. of eggs laid during 48 weeks. Super Grade	1st Grade	2nd Grade	Below 2nd Grade	Score Value
1	22	Mr. J. C. Stewart, Balloo, Killinchy, Co. Down.	1,008	342	40	4	1,350
2	10	Mrs. D. C. Gamble, Roan Lodge, Coalisland, Co. Tyrone.	854	451	25	1	1,305
3	3	Mrs. J. M. Brogden, Fernshaw, Dungannon, Co. Tyrone.	860	442	134	4	1,302
4	4	Mr. R. A. Copeland, Blackscull, Dromore, Co. Down.	774	483	83	3	1,257
5	5	Mrs. H. G. Darley, Trory, Ballinamallard, Co. Fermanagh.	689	535	70	3	1,224

SECTION 2. WHITE LEGHORNS (OPEN). 13 pens.

1	33	Mrs. E. Johnston, Craigboy, Donaghadee, Co. Down.	1,006	210	19	—	1,216
2	35	Mr. W. D. Anderson, Ballyaugherty, Saintfield, Co. Down.	669	482	18	—	1,151
3	41	Mr. H. L. Brown, 57 Millisle Road, Donaghadee, Co. Down.	595	525	44	—	1,120

SECTION 3. RHODE ISLAND REDS (OPEN). 31 pens.

1	53	Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh.	790	624	64	—	1,414
2	64	Mr. H. Ramsey, Sylvan Cottage, Gilnahirk, Belfast.	353	911	152	—	1,264
3	63	Mr. W. Patton, The Hill, Loughries, Newtownards, Co. Down.	837	357	36	—	1,194
4	52	Mrs. H. Getty, Hillcrest, Newtownards, Co. Down.	673	519	47	1	1,192
5	62	Mrs. D. Patterson, Ballycastle Road, Coleraine, Co. Londonderry.	607	576	173	6	1,183

SECTION 4. ANY OTHER PURE BREED (OPEN). 16 pens.

Position.	No. of pen.	Name and Address of Owner.	No. of eggs laid during 48 weeks. Super Grade	1st Grade	2nd Grade	Below 2nd Grade	Score Value
1	76	Mrs. H. Getty, Hillcrest, Newtownards, Co. Down. (Light Sussex)	485	689	112	3	1,174
2	75	Mrs. M. Finlay, Langfield, Armoy, Co. Antrim. (Light Sussex.)	709	459	230	—	1,168
3	84	Mrs. S. B. Nangle, Ballyeglish, Moneymore, Co. Londonderry. (Light Sussex)	695	341	143	5	1,036

SECTION 5 (*a*). WHITE WYANDOTTES (STATION HOLDERS). 14 pens.

1	93	Mr. C. E. Crooke, The Rocks, Blaney, Enniskillen, Co. Fermanagh.	613	778	138	4	1,391
2	91	Mr. W. A. Bell, Donaghanie, Beragh, Co. Tyrone.	632	610	140	3	1,242
3	99	Mrs. M. Rodgers, Ballyginney, Dundrum, Co. Down.	846	341	96	2	1,187
4	95	Miss M. M'Allister, Turnpike House, Backnamullagh, Dromore, Co. Down.	504	673	154	3	1,177

SECTION 5 (*b*). WHITE LEGHORNS (STATION HOLDERS). 10 pens.

1	105	Mrs. J. Brown, Gorsebank, Culcrum, Cloughmills, Co. Antrim.	844	298	52	3	1,142
2	112	Mrs. M. Noble, Roundpark House, Killycramph, Lisnaskea, Co. Fermanagh.	416	617	93	2	1,033
3	109	Mrs. R. Gillespie, Drumlester, Sixmilecross, Co. Tyrone.	466	559	193	43	1,025

SECTION 5 (*c*). RHODE ISLAND REDS (STATION HOLDERS). 20 pens.

1	127	Mrs. H. McMaster, Little Ballymena, Broughshane, Co. Antrim.	999	249	24	2	1,248
	130	Mrs. H. Rea, Lisowen, Crossgar, Co. Down.	978	270	11	—	1,248
2	124	Mrs. R. McGiffert, Rathcunningham, Toye, Co. Down.	639	532	39	2	1,171
3	117	Mrs. R. J. Dunn, Ballyskeagh, Artigarvan, Co. Tyrone.	589	572	160	7	1,161
4	116	Miss S. M. Donaghy, Hilden, Ballymoney, Co. Antrim.	605	525	22	1	1,130
5	115	Mrs. H. H. Dickson, Lower Coagh, Co. Tyrone.	748	371	116	15	1,119

SECTION 6 POULTRY CLUBS AND YOUNG FARMERS' CLUBS. 12 pens.

Position.	No. of pen.	Name and Address of Club.	No. of eggs laid during 48 weeks. Super Grade	1st Grade	2nd Grade	Below 2nd Grade	Score Value
1	135	Aghadowey Poultry Club, Co. Londonderry. (Rhode Island Reds)	573	523	142	10	1,096
2	141	Crumlin Poultry Club, Co. Antrim. (White Wyandottes)	532	475	232	16	1,007
3	145	Saintfield Young Farmers' Club, Co. Down. (Rhode Island Reds)	478	515	138	3	993

AWARDS FOR PENS OF BEST TYPE.

The special awards for the pens of best type have been made as follows :—

White Wyandottes :—

Winner—Pen 2, owned by Mrs. R. J. Beck, Cleigh, Corbet, Banbridge, Co. Down.
Runner-up—Pen 1, owned by Mrs. M. A. Barnett, Ballagh, Clogher, Co. Tyrone.

White Leghorns :—

Winner—Pen 33, owned by Mrs. E. Johnston, Craigboy, Donaghadee, Co. Down.
Runner-up—Pen 109, owned by Mrs. R. Gillespie, Drumlester, Sixmilecross, Co. Tyrone.

Rhode Island Reds :—

Winner—Pen 70, owned by Mr. J. O. Turkington, Derryinver, Lurgan, Co. Armagh.
Runner-up—Pen 45, owned by Mr. W. D. Anderson, Ballyaugherry, Saintfield, Co. Down.

Light Sussex :—

Winner—Pen 75, owned by Mrs. M. Finlay, Langfield, Armoy, Co. Antrim.
Runner-up—Pen 81, owned by Mrs. H. W. Merrick, Agivey House, Aghadowey, Co. Derry.

The Leading Pens in the entire Test were :—

1st—Pen 53. Rhode Island Reds owned by Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh.
Score 1414 Super grade and first grade eggs.

2nd—Pen 93. White Wyandottes, owned by Mr. C. E. Crooke, The Rocks, Blaney, Enniskillen, Co. Fermanagh.
Score 1391 Super grade and first grade eggs.

3rd—Pen 22. White Wyandottes, owned by Mr. J. C. Stewart, Balloo, Killinchy, Co. Down.
Score 1350 Super grade and first grade eggs.

LIST OF COPPER AND BRASS RINGS.

The following are particulars of the birds which were awarded Copper or Brass rings. To be eligible for a Copper ring a bird must have laid at least 200 super-grade and first-grade eggs (2oz. or over) during the period of the test, and to be eligible for a Brass ring at least 180 super-grade and first-grade eggs. In addition, the birds must have passed the test for Bacillary White Diarrhoea disease and an inspection test by a poultry judge for type. Copper rings are awarded only to birds of White Wyandotte, White Leghorn, Rhode Island Red, Black Leghorn and Buff Rock breeds.

SECTION 1. WHITE WYANDOTTES.

Pen No.	Test No. of Bird.	Name and Address of Owner.	Copper Ring No.
1	4	Mrs. M. A. Barnett, Ballagh, Clogher, Co. Tyrone.	U 1/37
,,	5	do. do. do.	U 2/37
2	7	Mrs. R. J. Beck, Cleigh, Corbet, Banbridge, Co. Down.	U 3/37
,,	8	do. do. do.	U 4/37
,,	9	do. do. do.	U 5/37
,,	10	do. do. do.	U 6/37
3	13	Mrs. J. M. Brogden, Fernshaw, Dungannon, Co. Tyrone.	U 7/37
,,	14	do. do. do.	U 8/37
,,	15	do. do. od.	U 9/37
,,	16	do. do. do.	U 10/37
,,	18	do. do. do.	U 11/37
4	20	Mr. R. A. Copeland, Blackskull, Dromore, Co. Down.	U 12/37
,,	21	do. do. od.	U 13/37
,,	22	do. do. do.	U 14/37
5	25	Mrs. H. G. Darley, Trory, Ballinamallard, Co. Fermanagh.	U 15/37
,,	26	do. do. do.	U 16/37
,,	27	do. do. do.	U 17/37
7	38	Mr. T. Foote, Broughshane, Maze, Lisburn, Co. Antrim.	U 18/37
8	43	Lieut.-Col. J. P. Galbraith, Clanabogan, Omagh, Co. Tyrone.	U 19/37
10	55	Mrs. D. C. Gamble, Roan Lodge, Coalisland, Co. Tyrone.	U 20/37
,,	56	do. do. do.	U 21/37
,,	57	do. do. do.	U 22/37
,,	59	do. do. do.	U 23/37
,,	60	do. do. do.	U 24/37
11	61	Greenmount Agricultural & Horticultural College, Muckamore, Co. Antrim.	U 25/37
13	74	Mrs. J. R. Jackson, Fortview, Coleraine, Co. Derry.	U 26/37
,,	77	do. do. do.	U 27/37
14	79	Mrs. E. Johnston, Craigboy, Donaghadee, Co. Down.	U 28/37
,,	80	do. do. do.	U 29/37
,,	81	do. do. do.	U 30/37
,,	83	do. do. do.	U 31/37
15	86	Miss E. E. Kennedy, Tullyreagh, Glarryford, Co. Antrim.	U 32/37
,,	87	do. do. do.	U 33/37

SECTION 1. WHITE WYANDOTTES.—Continued.

Pen No.	Test No. of Bird.	Name and Address of Owner.	Copper Ring No.
17	97	Mr. J. Lenaghan, Tyconnett, Ballynahinch, Co. Down.	U 34/37
,,	99	do. do. do.	U 35/37
20	118	Mrs. M. Sproule, Denamona, Fintona, Co. Tyrone.	U 36/37
21	121	Mrs. H. E. Stevenson, Dreemore, Dungannon, Co. Tyrone.	U 37/37
,,	122	do. do. do.	U 38/37
,,	123	do. do. do.	U 39/37
,,	125	do. do. do.	U 40/37
22	127	Mr. J. C. Stewart, Balloo, Killinchy, Co. Down.	U 41/37
,,	128	do. do. do.	U 42/37
,,	130	do. do. do.	U 43/37
,,	132	do. do. do.	U 44/37
23	133	Mr. John Stuart, 24 High Street, Ballymena, Co. Antrim.	U 45/37
,,	136	do. do. do.	U 46/37
,,	137	do. do. do.	U 47/37
25	146	Villa Colony Poultry Farm, Purdysburn, Belfast.	U 48/37
26	155	Mrs. E. Johnston, Craigboy, Donaghadee, Co. Down.	U 49/37
27	157	Mrs. H. E. Stevenson, Dreemore, Dungannon, Co. Tyrone.	U 50/37
,,	159	do. do. do. do.	U 51/37
,,	162	do. do. do. do.	U 52/37
28	164	Mrs. J. Warnock, Tower View, Rathgael, Bangor, Co. Down.	U 53/37
,,	166	do. do. do. do.	U 54/37

SECTION 2. WHITE LEGHORNS.

29	170	Mrs. F. R. Browne, Lakeview, Enniskillen, Co. Fermanagh.	U 55/37
30	178	Mr. Johnson, Connor, Knockagh, Monkstown, Co. Antrim.	U 56/37
32	189	Mr. D. Freeland, Craigavad, Co. Down.	U 58/37
33	193	Mrs. E. Johnston, Craigboy, Donaghadee, Co. Down.	U 59/37
,,	194	do. do. do.	U 60/37
,,	198	do. do. do.	U 61/37
34	203	Mr. T. J. McMillan, Crossgar, Co. Down.	U 62/37
35	206	Mr. W. D. Anderson, Ballyaugherty, Saintfield, Co. Down.	U 63/37
,,	208	do. do. do. do.	U 64/37
37	218	Miss M. Tate, Danesfort, Belcoo, Co. Fermanagh.	U 65/37
38	226	Mrs. J. Warnock, Tower View, Rathgael, Bangor, Co. Down.	U 66/37
39	231	Mr. J. Waugh, Ballyrickard, Kilwaughter, Co. Antrim.	U 67/37
41	242	Mr. H. L. Brown, 57 Millisle Road, Donaghadee, Co. Down.	U 68/37

SECTION 3. RHODE ISLAND REDS.

44	259	Miss M. C. Dunlop, Annemount, Keady, Co. Armagh.	U 69/37
45	268	Mr. W. D. Anderson, Ballyaugherty, Saintfield, Co. Down.	U 70/37
,,	269	do. do. do.	U 71/37
46	271	Mrs. E. R. Dunwoody, Benmore, Islandmagee, Co. Antrim.	U 72/37
,,	272	do. do. do.	U 73/37
,,	274	do. do. do.	U 74/37
47	281	Mrs. Hamilton Farr, Ballyginney, Dundrum, Co. Down.	U 75/37
49	292	Mrs. M. Finlay, Langfield, Armoy, Co. Antrim.	U 76/37
,,	293	do. do. do.	U 77/37
,,	294	do. do. do.	U 78/37

SECTION 3. RHODE ISLAND REDS.—Continued.

Pen No.	Test No. of Bird.	Name and Address of Owner.	Copper Ring No.
50	295	Mrs. H. M. Fletcher, Ashgrove, Lisadian, Hillsboro, Co. Down.	U 79/37
,,	297	do. do. do. do.	U 80/37
51	301	Mr. T. Foote, Broughmore, Maze, Lisburn, Co. Antrim.	U 82/37
,,	303	do. do. do.	U 83/37
52	309	Mrs. H. Getty, Hillcrest, Newtownards, Co. Down.	U 84/37
,,	310	do. do. do.	U 85/37
,,	311	do. do. do.	U 86/37
53	313	Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh.	U 87/37
,,	315	do. do. do.	U 88/37
,,	316	do. do. do.	U 89/37
,,	317	do. do. do.	U 90/37
,,	318	do. do. do.	U 91/37
54	323	Miss E. E. Kennedy, Tullyreagh, Glarryford, Co. Antrim.	U 92/37
55	327	Langford Lodge Poultry Farm, Crumlin, Co. Antrim.	U 93/37
,,	329	do. do. do.	U 94/37
56	333	Mr. T. Foote, Broughmore, Maze, Lisburn, Co. Antrim.	U 95/37
57	338	Mr. W. McCullough, Carnalbanagh, Ballymena, Co. Antrim.	U 96/37
,,	340	do. do. do. do.	U 97/37
58	343	Mr. T. J. McMillan, Crossgar, Co. Down.	U 98/37
59	351	Mrs. J. McNeill, Drain's Bay, Larne, Co. Antrim.	U 99/37
,,	352	do. do. do.	U100/37
,,	353	do. do. do.	U101/37
60	357	Mr. R. J. O'Hanlon, Rose Cottage, Drumahead, Tanderagee, Co. Armagh.	U102/37
,,	358	do. do. do. do.	U103/37
,,	360	do. do. do. do.	U104/37
62	367	Mrs. D. Patterson, Ballycastle Road, Coleraine, Co. Derry.	U105/37
,,	370	do. do. do. do.	U106/37
63	376	Mr. W. Patton, The Hill, Loughries, Newtownards, Co. Down.	U108/37
,,	378	do. do. do. do.	U109/37
64	380	Mr. H. Ramsey, Sylvan Cottage, Gilnahirk, Belfast.	U110/37
,,	384	do. do. do.	U111/37
65	385	Mrs. A. E. Robinson, Edenderry Cottage, Omagh, Co. Tyrone.	U112/37
,,	386	do. do. do. do.	U113/37
68	403	Mrs. H. E. Stevenson, Dreemore, Dungannon, Co. Tyrone.	U114/37
,,	406	do. do. do. do.	U115/37
,,	407	do. do. do. do.	U116/37
,,	408	do. do. do. do.	U117/37
69	409	Mr. T. E. Taylor, Ballyrobert, Craigavad, Co. Down.	U118/37
70	416	Mr. J. O. Turkington, Derryinver, Lurgan, Co. Armagh.	U119/37
,,	417	do. do. do.	U120/37
,,	420	do. do. do.	U121/37
71	426	Mrs. J. Warnock, Tower View, Rathgael, Bangor. Co. Down.	U122/37

SECTION 4. ANY OTHER PURE BREED.

			Brass Ring No.
73*	437	Miss L. L. Connor, The Dairies, Drumcose, Enniskillen.	U201/37
74	440	Miss M. Crowe, Knappagh, Killylea, Co. Armagh.	U202/37
,,	441	do. do. do.	U203/37
,,	444	do. do. do.	U204/37
75	445	Mrs. M. Finlay, Langfield, Armoy, Co. Antrim.	U205/37
,,	447	do. do. do.	U206/37
,,	448	do. do. do.	U207/37
,,	450	do. do. do.	U208/37

*Purchased by Mr. S. A. Upton, Drumscull, Maze, Lisburn.

SECTION 4. ANY OTHER PURE BREED.—Continued.

Pen No.	Test No. of Bird.	Name and Address of Owner.	Brass Ring No.
76	454	Mrs. H. Getty, Hillcrest, Newtownards, Co. Down.	U209/37
,,	455	do. do. do.	U210/37
,,	456	do. do. do.	U211/37
77	458	Greenmount Agricultural & Horticultural College, Muckamore, Co. Antrim.	U212/37
,,	459	do. do. do. do.	U213/37
,,	460	do. do. do. do.	U214/37
78	465	Miss S. McKee, Drumnascamp, Rathfriland, Co. Down.	U215/37
79	473	Mrs. T. J. McLaren, Ballykeel, Sixmilecross, Co. Tyrone.	U216/37
80	479	Miss C. C. Meara, Coalisland, Co. Tyrone.	U217/37
81	484	Mrs. H. W. Merrick, Agivey House, Aghadowey, Co. Derry.	U218/37
,,	486	do. do. do.	U219/37
82	488	Mrs. J. W. Murland, Annsborough, Co. Down.	U220/37
83	494	do. do. do.	U221/37
,,	498	do. do. do.	U222/37
84	500	Mrs. S. B. Nangle, Ballyeglish, Moneymore, Co. Derry.	U223/37
85	506	Miss M. Brennan, Culmore, Rasharkin, Co. Antrim.	U224/37
			Copper Ring No.
86	516†	Mr. R. Holmes, Moneycarne, Killykergan, Coleraine, Co. Derry.	U123/37
88	525†	do. do. do. do.	U124/37

†Buff Rock—all others Light Sussex.

SECTION 5 (*a*). WHITE WYANDOTTES (Stationholders).

89	529	Miss E. L. Wilson, The Hill, Moneycree, Armagh.	U125/37
,,	532	do. do. do.	U126/37
91	451	Mr. W. A. Bell, Donaghanie, Beragh, Co. Tyrone.	U127/37
,,	542	do. do. do.	U128/37
,,	546	do. do. do.	U129/37
92	550	Miss A. Brown, Ballyhill, Crumlin, Co. Antrim.	U130/37
93	555	Mrs. C. E. Crooke, The Rocks, Blaney, Enniskillen, Co. Fermanagh.	U131/37
,,	556	do. do. do. do.	U132/37
,,	557	do. do. do. do.	U133/37
94	561	Miss M. Lynch, Drumaneeny Farm, Eglinton, Co. Derry.	U134/37
,,	562	do. do. do. do.	U135/37
,,	564	do. do. do. do.	U136/37
95	569	Mrs. M. McAllister, Turnpike House, Backnamullagh, Dromore, Co. Down.	U137/37
99	589	Mrs. M. Rodgers, Ballyginney, Dundrum, Co. Down.	U138/37
,,	592	do. do. do.	U139/37
,,	593	do. do. do.	U140/37
,,	594	do. do. do.	U141/37
100	600	Mrs. P. D. Savage, Backaderry, Leitrim, Banbridge, Co. Down.	U142/37
101	601	Mrs. W. J. Veitch, Knockninny, Thompson's Bridge, Co. Fermanagh.	U143/37
,,	603	do. do. do. do.	U144/37
,,	604	do. do. do. do.	U145/37
103	616	Mrs. M. Warmington, Lakeview, Newtownhamilton, Co. Armagh.	U146/37
,,	618	do. do. do. do.	U147/37

SECTION 5 (*b*). WHITE LEGHORNS (Stationholders).

Pen No.	Test No. of Bird.	Name and Address of Owner.	Copper Ring No.
104	624	Miss I. Gilmer, Rashee, Ballyclare, Co. Antrim.	U148/37
105	626	Mrs. J. Brown, Gorsebank, Culcrum, Cloughmills, Co. Antrim.	U149/37
,,	629	do. do. do. do.	U150/37
109	649	Mrs. R. Gillespie, Drumlester, Sixmilecross, Co. Tyrone.	U151/37
110	656	Miss E. W. Irwin, Termeil House, Dungiven, Co. Derry.	U152/37
111	661	Mrs. J. Knox, Shanmullagh, Ederney, Co. Fermanagh.	U153/37
,,	662	do. do. do.	U154/37
,,	663	do. do. do.	U155/37
112	669	Mrs. M. Noble, Roundpark House, Killycramph, Lisnaskea, Co. Fermanagh.	U156/37
,,	671	do. do. do. do.	U157/37
113	674	Mrs. E. A. Paul, Divernagh, Bessbrook, Co. Armagh.	U158/37
,,	676	do. do. do.	U159/37

SECTION 5 (*c*). RHODE ISLAND REDS (Stationholders).

114	682	Mrs. M. D. Bell, Woodview, Moneymore, Co. Derry.	U160/37
115	685	Mrs. H. H. Dickson, Lower Coagh, Co. Tyrone.	U161/37
,,	686	do. do. do.	U162/37
,,	688	do. do. do.	U163/37
,,	689	do. do. do.	U164/37
116	693	Miss S. W. Donaghy, Hilden, Ballymoney, Co. Antrim.	U165/37
,,	696	do. do. do.	U166/37
117	698	Mrs. R. J. Dunn, Ballyskeagh, Artigarvan, Co. Tyrone.	U167/37
,,	699	do. do. do.	U168/37
119	714	Miss A. M. Fulton, Thornhill, Ballykelly, Co. Derry.	U169/37
122	727	Mrs. W. McCallum, Aldohil House, Newtownstewart, Co. Tyrone.	U170/37
,,	728	do. do. do. do.	U171/37
,,	732	do. do. do. do.	U172/37
123	733	Mrs. M. McClintock, Laymore, Ballymena, Co. Antrim.	U173/37
124	739	Mrs. R. McGiffert, Rathcunningham, Toye, Belfast	U174/37
,,	741	do. do. do.	U175/37
,,	742	do. do. do.	U176/37
,,	744	do. do. do.	U177/37
125	747	Mrs. J. A. McKee, Aughnagurgan, Lower Darkley, Keady, Co. Armagh.	U178/37
,,	749	do. do. do. do.	U179/37
,,	750	do. do. do. do.	U180/37
126	755	Miss S. McKee, Ardmillan House, Killinchy, Co. Down.	U181/37
127	757	Mrs. H. McMaster, Little Ballymena, Broughshane, Co. Antrim.	U182/37
,,	761	do. do. do. do.	U183/37
,,	762	do. do. do. do.	U184/37
129	772	Mrs. N. Percy, Solar Farm, Cairncastle, Co. Antrim.	U185/37
130	775	Mrs. H. Rea, Losowen, Crossgar, Co. Down.	U186/37
,,	776	do. do. do.	U187/37
,,	777	do. do. do.	U188/37
,,	779	do. do. do.	U189/37
,,	780	do. do. do.	U190/37
131	782	Mrs. H. Rea, Lisowen, Crossgar, Co. Down.	U191/37
,,	783	do. do. do.	U192/37
,,	786	do. do. do.	U193/37
132	792	Mrs. J. W. Stewart, Boghill, Coleraine, Co. Derry.	U194/37

SECTION 6. CLUB ENTRIES.

Pen No.	Test No. of Bird.	Name and Address of Owner.	Copper Ring No.
135	805*	Aghadowey Poultry Club.	U195/37
,,	808*	do.	U196/37
,,	810*	do.	U197/37
139	831†	Banbridge and District Poultry Club.	U198/37
140	836*	Crumlin Poultry Club.	U199/37
,,	840*	do.	U200/37
141	842†	Crumlin Poultry Club.	U231/37
,,	843†	do.	U232/37
144	860*	Newtownards Poultry Club.	U233/37
145	865*	Saintfield Young Farmers' Club.	U234/37
146	874*	South Tyrone Poultry Keepers' Association.	U235/37

*Rhode Island Reds.

†White Wyandottes.

PRICES OF FEEDING STUFFS AT SPECIFIED CENTRES.

The following table shows the retail cash prices per cwt. of Feeding Stuffs at 1st September, 1937, in ten representative centres in Northern Ireland.

	Antrim	Armagh	Ballymena	Belfast	Castlewellan	Coleraine	Dungannon	Enniskillen	Omagh	Strabane
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
PROTEIN FOODS :										
Linseed (whole)	12 0	16 0	16 0	16 0	20 0	19 0	18 0	16 0	20 0	17 6
Linseed Cake, home-made ..	—	12 0	11 6	12 0	11 3	—	12 6	11 0	11 3	—
Linseed Cake, foreign ..	10 3	10 6	10 0	10 6	—	12 0	10 6	9 6	10 9	11 0
Linseed Cake Meal	10 0	12 0	10 0	10 6	11 3	11 6	10 6	11 6	11 3	11 0
Cotton Cake, decorticated ..	10 3	—	9 0	11 0	10 6	10 0	10 0	9 6	—	10 6
Earthnut Cake, decorticated ..	10 3	—	9 3	10 0	—	10 3	9 0	9 6	10 0	10 6
Soya Bean Meal (extracted) ..	11 0	11 6	11 6	11 6	—	11 6	11 0	11 6	11 0	11 9
Fish Meal (60% protein) ..	17 0	16 6	16 0	16 0	16 6	16 6	16 6	15 6	16 6	17 6
Meat Meal (60% protein) ..	16 6	16 0	14 9	—	16 3	16 9	18 6	15 0	15 6	—
Meat and Bone Meal (40% protein)	—	11 6	11 6	10 0	—	13 0	12 6	—	—	11 6
MEDIUM PROTEIN FOODS :										
Palm Kernel Cake	9 3	9 6	9 0	7 6	—	10 0	—	—	9 6	—
Palm Kernel Meal	9 3	9 6	9 0	7 6	—	10 0	—	—	9 6	—
STARCHY FOODS :										
Maize (whole)	7 4½	7 6	7 6	7 0	7 6	7 9	7 6	7 6	—	—
Maize Meal	7 10½	7 9	7 6	7 6	8 0	7 9	7 6	7 9	7 9	7 9
Maize, Flaked	8 3	8 6	8 0	8 0	8 3	8 6	8 6	8 3	8 9	8 6
Wheat (whole)	13 0	—	—	10 6	11 6	10 9	—	—	—	—
Bran, Red	8 9	9 0	8 9	9 0	—	8 6	8 9	9 6	9 0	8 6
Bran, White	10 0	10 3	9 9	10 0	10 3	9 9	10 0	10 6	10 6	11 0
Pollard, Brown	8 9	9 0	9 0	9 6	—	9 0	9 0	9 0	9 0	8 0
Pollard, White	—	10 0	10 0	10 0	10 6	10 0	10 0	10 6	10 0	11 0
Barley Meal	10 3	10 6	9 6	10 6	10 0	10 6	9 6	10 6	10 3	11 6
Tapioca Root Flour	8 0	9 0	8 6	—	—	8 6	8 6	9 0	8 6	—
Oats (whole)	10 6	10 0	10 0	10 6	9 6	9 6	—	10 0	—	10 0
Crushed Oats	—	10 6	11 0	11 0	10 0	10 0	—	11 0	—	11 0

NON-CONCENTRATES.—The average prices at representative markets at the beginning of September were as follow:—Potatoes (Earlies), 3/7d. per cwt.; Upland Hay, 69/9 per ton; Oat straw, 47/11d. per ton.

AVERAGE PRICES OF FEEDING STUFFS.

The following table shows the average retail cash prices per cwt. of feeding stuffs at 1st September, 1937, with comparative prices as at the 1st of the previous month; the costs per unit of protein equivalent and of starch equivalent are also given in respect of each month.

	Protein equivalent	Starch equivalent	Average price per cwt. at		Cost per unit of Protein equivalent		Cost per unit of starch equivalent	
			1st Sept.	1st Aug.	Sept.	August	Sept.	August
Protein Foods			s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Linseed ..	19.0	119.0	17 0½	16 9	17 11	17 7½	2 10½	2 10
Crushed linseed	19.0	119.0	18 10	18 7	19 10	19 7	3 2	3 1½
Linseed cake (home-made)	25.0	72.0	11 8	11 5	9 4	9 1½	3 3	3 2
Linseed cake (foreign)	25.0	72.0	10 6½	10 7	8 5	8 5½	2 11	2 11
Linseed cake meal	25.0	72.0	10 11½	10 8	8 9	8 6½	3 0½	2 11½
Decorticated Cotton cake	35.0	71.0	10 1	10 5	5 9	5 11½	2 10	2 11
Decorticated Earthnut cake	41.0	73.0	9 10	9 10	4 10	4 10	2 8	2 8
Extracted Soya Bean meal	38.0	64.0	11 4	11 5	6 0	6 0	3 6½	3 7
Fish meal (60% protein)	53.0	59.0	16 5	16 3	6 2	6 1½	5 7	5 6
Meat meal (60% protein)	55.0	61.0	16 2	15 9	5 11	5 9	5 4	5 2
Meat & bone meal (40% protein)	36.0	44.0	11 8	11 7	6 6	6 5	5 4	5 3
Medium Protein Foods								
Palm kernel cake	17.0	75.0	9 1½	9 6	10 9	11 2	2 5	2 6½
Palm kernel meal	17.0	75.0	9 1½	9 6	10 9	11 2	2 5	2 6½
Starchy Foods								
Maize	6.8	81.0	7 5½	7 5	21 11	21 10	1 10	1 10
Maize meal	6.8	81.0	7 9	7 9	22 10	22 10	1 11	1 11
Flaked maize	8.6	83.0	8 4	8 4	19 4½	19 4½	2 0	2 0
Wheat	9.6	72.0	11 5	10 11	23 10	22 9	3 2	3 0½
Red bran	10.0	43.0	8 10	9 0	17 8	18 0	4 1	4 2½
White bran	10.0	43.0	10 2½	10 2	20 5	20 4	4 9	4 9
Brown pollard	11.0	60.0	8 11	8 11	16 2½	16 2½	3 0	3 0
White pollard	11.0	60.0	10 3	10 0	18 7½	18 2	3 5	3 4
Barley meal	7.0	70.0	10 3½	10 5	29 5	29 9	2 11½	3 0
Oats	7.6	60.0	10 0	9 10½	26 4	26 0	3 4	3 3½
Crushed oats	7.6	60.0	10 8	10 5½	28 1	27 6	3 6½	3 6
Tapioca root flour	1.0	83.5	8 7	8 4	171 8	166 8	2 0½	2 0
Non-Concentrates								
Potatoes (Earlies)	0.6	18.0	3 7	5 0¾	119 5	168 9	4 0	5 7½
Upland hay	4.9	24.0	3 6	3 8½	14 3	15 1½	2 11	3 1
Oat Straw	0.9	20.0	2 5	2 5½	53 9	54 8	2 5	2 5½

The object of the foregoing tables, besides providing information regarding the prices of feeding stuffs and the trend of prices, is to give purchasers a

guide as to the economic purchase of supplies. It should be understood that the price per ton is not a sound basis on which to judge whether or not a particular food or grade of a particular food is good value for money. The composition of the foods is the only basis on which different grades can be compared. The value of foods of different kinds, but of the same nature in reference to market prices, can also be compared on this basis.

In the case of an artificial manure which supplies only one fertilising ingredient as, for example, sulphate of ammonia, which supplies nitrogen, the cost of the unit of nitrogen at the price charged can be determined quite readily by dividing the price per ton by the percentage of nitrogen in the sample, and the figure thus obtained is the cost of a unit of nitrogen. By this method the most economical source of nitrogen can be ascertained. Similarly, in the cases of phosphatic and potassic manures.

With feeding stuffs, however, the same method cannot be applied to determine comparative values. This is because every feeding stuff contains three important food constituents in varying proportions. These are (1) carbohydrates, (2) oils or fats, and (3) proteins or albuminoids. The carbohydrates comprise a group of substances such as starch, sugar and cellulose. These substances supply heat or energy to the animal, and the surplus goes to form fat. They are the fuel which the animal requires to keep the body "fires" burning. The oils of a feeding stuff are also heat and energy suppliers, and the surplus is stored as fat. The oils are approximately 2½ times more valuable than the carbohydrates as heat and energy producers, but excess in a ration may lower its digestibility and cause digestive troubles. The proteins are the most valuable and most expensive food constituent. They contain nitrogen and are the part of the food from which products which contain protein are chiefly made. Thus the protein products, such as lean meat, milk and eggs, are formed principally from protein, and young, growing animals, dairy cows and laying hens must have an adequate quantity of protein for full growth, development and production.

While all animals require a certain amount of carbohydrates, oils and proteins, the relative amounts depend on the class of stock. For example, a two-year-old fattening bullock requires much less protein than a dairy cow in milk, and a fattening chicken less than a laying pullet.

There are wide differences in the composition of the different kinds of feeding stuffs. Some are rich in carbohydrates and, therefore, particularly valuable for fattening purposes. These include oats, maize, barley and wheat, and their products. Others are rich in protein and are valuable for producing flesh, milk and eggs. These include decorticated cotton cake, decorticated earthnut cake, meat meal and soya bean meal.

In the following table the composition of some of the commonly used feeding stuffs is shown—

	Water.	Protein.	Oil.	Carbohydrates.
Non concentrates				
Swede turnips ..	88	1	0.2	9
Potatoes ..	75	2	0.1	21
Cabbage ..	89	1.5	0.5	8
Oat Straw ..	14	4	2	37
Meadow hay ..	10	10	3	45
Pasture grass ..	80	3.5	0.8	10
Fattening Foods				
Crushed oats ..	13	9	6	60
Maize meal ..	12	10	4	70
Barley meal ..	13	12	2	66
Pollard ..	13	15	5	57
Flesh forming foods				
Decorticated Cotton cake ..	9	40	9	26
Decorticated Earthnut cake ..	10	46	7	23
Meat meal ..	11	60	6	—
Soya bean meal ..	11	44	1.5	32

The problem confronting the purchaser of feeding stuffs, who is concerned with the business of getting best value for money, is one which is much more difficult to solve than is the case with artificial fertilisers. There are at least four aspects of the problem to be considered:

(1) the quality of the different foods offered for sale. This can be determined by reference to the particulars of composition which a seller must give a purchaser in accordance with the Fertilisers and Feeding Stuffs Act.

(2) The physical condition of the foods, and if fresh or stale.

(3) The suitability of the foods for the purpose in view.

(4) The comparative values of the foods at the prices quoted.

The chief concern of this section of the Report is comparative values and, therefore, that aspect of the problem will be considered specifically.

The proteins play a part in the nutrition of the animal which cannot be taken by either carbohydrates or oils. In addition to this, the proteins, carbohydrates and oils have very different values for the production of energy or fat. It therefore follows that the simple procedure of totalling the percentages of these three ingredients and dividing this total into the price per ton in order to obtain a value for a unit of the food-stuff is quite unsound. Various methods have been used to compare the values of different feeding stuffs, but none is completely satisfactory. For practical purposes the least cumbersome is the

method whereby the food-stuffs are placed in groups of similar composition, and the values of the members of each group are then compared by consideration of (a) their protein equivalents, and (b) their starch equivalents. The starch equivalent is the number of pounds of starch which would be required to produce the same amount of "fat" in an animal as 100 pounds of the food-stuff in question. It is essentially a measure of the fat-producing value of the food-stuff. The protein equivalent is the number of pounds of digestible true protein, plus half the number of pounds of non-protein nitrogenous substances such as amides, present in 100 pounds of the food-stuff. It is a measure of the value of the food-stuff to the animal as a source of protein.

By this method all foods can be reduced to comparable standards based on (1) the protein equivalent, and (2) the starch equivalent.

The next stage in comparing values is to determine the cost of a unit of protein equivalent and of starch equivalent in the different foods which are being compared, and to enable the reader to do this the protein and starch equivalent figures for the different foods are given on the table on page 264, and also the cost per unit of protein equivalent and of starch equivalent in each case. These costs have been determined by dividing the protein equivalent figure and the starch equivalent figure, respectively, into the current price per ton, and the lower the quotient figures thus obtained the cheaper is the particular food as a source of protein or of starch equivalent as the case may be.

However, it would be quite misleading to compare the cost of a unit of protein equivalent in a protein food (which is purchased principally for its protein) with the cost of a similar unit in a starchy food. In other words, foods such as maize meal and pollard cannot be compared on the basis of cost of protein equivalent with foods such as decorticated cotton cake and meat meal.

The best course to adopt is to consider for what purpose the particular food is required, decide what foods are suitable for that purpose, examine the samples of these different foods which are offered and, if all appear to be satisfactory, apply the unit value system of determining which one provides protein equivalent or starch equivalent at the cheapest rate. A few examples may be helpful in explaining the procedure.

(1) Suppose it is intended to purchase a protein food for the purpose of balancing a ration for dairy cows. The protein foods suitable for dairy cows are decorticated cotton cake, decorticated earthnut cake and soya bean meal. From the table on page 264 it is seen that at the current average prices of these foods the cost of the unit of protein equivalent in each is as follows:—

Decorticated cotton cake	...	...	5/9d.
Decorticated earthnut cake	...	...	4/10d.
Soya bean meal	...	...	6/0d.

Accordingly decorticated earthnut cake is the cheapest source of protein.

(2) A protein food is required as a milk substitute to balance the ration for fattening pigs. The foods suitable for this purpose are soya bean meal, meat meal and meat and bone meal. Referring again to the table, it is seen that at the current average prices of these foods the cost of the unit of protein equivalent in each is as follows :—

Soya bean meal	...	...	6/0d.
Meat meal (60% protein)	...	...	5/11d.
Meat and bone meal (40% protein)		...	6/6d.

Therefore meat meal (60% protein) is the cheapest source of protein amongst the purchased foods suitable for pigs. This example shows also how the price per ton may mislead a purchaser into thinking he is being economical when he buys at the cheapest price. The 60% meat meal costs 4/6d. per cwt. more than the 40% meat and bone meal, and yet it is a cheaper source of protein than the latter. Besides, a lesser proportion in the meal mixture will suffice, and having usually a lower content of oil than the 40% grade, it is likely to prove more satisfactory than that grade, both from the thriving point of view and its effect on the quality of the bacon.

(3) Whether is it more economical to feed white pollard than brown pollard or white bran than red bran, even though the prices per ton of the white grades are higher than those of the brown or red grades? The figures in the table show that the cost of both the unit of protein equivalent and of starch equivalent is less for the brown pollard than the white, and less for the red than the white bran. It follows, therefore, that at current prices the coloured grades of pollard and bran are cheaper than the white grades. It should be remembered in this connection, however, that the comparison of costs in these cases have been made on the assumption that the composition of the coloured grades is the same as that of the white grades. A pollard containing say, 8 per cent. fibre, even if of a white colour, would have a far lower feeding value than one containing only 4 per cent. of fibre. Colour is not a guide as to the feeding value of pollard or bran.

PRICES OF FAT STOCK.

The following were the average prices per live cwt. of bullocks and heifers sold at Belfast Auction Marts during each of the five weeks ended 31st August, 1937.

Week ended.	Bullocks.	Heifers.
	s. d.	s. d.
3rd August ...	41 3 ...	40 9
10th August ...	41 6 ...	41 3
17th August ...	42 6 ...	41 9
24th August ...	41 9 ...	40 9
31st August ...	40 9 ...	41 0

If the information you require is not obtainable in these pages, write to the Secretary, Ministry of Agriculture, Stormont, (Room 401), Belfast.

PRICES OF LIVE STOCK.

Average prices of Live Stock at Fairs during the month of August, 1937.

Date	Fair	Calves (under 9 months)	Store Cattle	Fat Cattle (18 months and over)	Springers		Milch Cows	Fat Lambs (under 12 months old)	Fat Sheep (over 2 years old)	Young Pigs
					Cows	Heifers				
		Per head £ s.	Per cwt. Live weight.	Per cwt. Live wgt.	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.
3	Strabane ..	—	40/– to 41/–	38/–	17 0	—	—	—	—	—
3	Omagh ..	7 5	40/– to 43/–	37/6	17 0	15 10	15 10	*2 0	*2 0	—
4	Londonderry ..	—	32/6 to 40/6	39/–	16 10	—	—	—	—	1 6
4	Rathfriland ..	6 12/6	40/6 to 43/–	39/–	16 15	13 10	16 0	*1 17 †1 5	—	1 6/3
6	Moy	—	37/6 to 44/–	39/–	16 0	13 15	16 5	—	—	—
9	Irvinestown ..	6 10	41/– to 43/–	37/–	16 0	15 0	14 10	1 15	—	1 12/6
10	Enniskillen ..	6 0	34/– to 42/–	38/–	16 10	15 10	15 0	‡1 15 *2 0	‡2 0	1 14
10	Dungiven ..	—	32/6 to 40/6	—	11 0	—	—	*1 15	—	1 6
11	Crossgar ..	—	40/– to 43/–	—	18 10	17 0	—	—	—	1 15
11	Kilrea	—	32/6 to 43/–	39/–	22 0	19 0	18 0	*1 15	—	1 7/6
13	Ballygawley ..	—	35/– to 46/–	38/–	16 10	—	16 0	—	—	1 12/6
16	Camlough ..	5 0	29/– to 34/6	39/–	16 10	16 0	13 10	*1 12	*1 14	—
18	Lisnaskea ..	4 19	30/– to 40/–	40/–	15 10	15 0	15 0	—	—	1 17
19	Ballymoney ..	6 9/6	40/– to 44/–	—	19 0	18 0	17 0	—	—	1 9
19	Ballynahinch ..	—	40/– to 43/–	—	17 10	16 0	16 0	*1 10	*1 15	1 16
21	Portadown ..	5 4	32/– to 40/–	39/–	17 0	16 10	17 0	—	—	1 12/6
21	Moneymore ..	6 10/6	39/– to 48/6	38/–	17 10	14 10	17 0	*1 11/3	—	1 8/6
23	Fintona ..	7 0	40/– to 43/–	39/6	16 0	15 10	15 0	*2 0	*1 15	1 12/6
26	Antrim ..	—	40/– to 46/6	39/–	21 0	19 0	24 10	—	—	1 8/6
27	Killylea ..	—	30/– to 47/–	39/–	17 10	—	16 0	—	—	—
27	Castlederg ..	5 0	39/– to 43/–	30/–	12 10	—	—	*2 0	*1 10	1 12/6
28	Ballymena ..	7 12/3	27/6 to 41/6	—	21 10	21 0	19 10	—	—	1 13

* Downs and Cross. ‡ Long Wools. † Mountain.

SHIPMENTS OF LIVE STOCK.

Statement showing the Shipments of Live Stock from Northern Ireland ports during the following periods:—Months of August, 1937, July, 1937, August, 1936; Eight months ended 31st August, 1937, and 31st August, 1936.

PORTS OF :—	CATTLE.						SHEEP.				PIGS.			
	Fat	Stores	Milch Cows	Springers.	Calves	Total	Fat	Stores	Lambs	Total	Fat	Stores	Total	Horses
Belfast	3,046	4,770	2,167	128	—	10,111	—	—	12,403	12,403	5,652	—	5,652	188
Larne	37	1,745	—	11	—	1,793	—	—	6,279	6,279	1,574	224	1,798	37
Londonderry ...	96	4,833	117	102	44	5,192	169	9	6,798	6,976	324	—	324	2
Newry	8	313	—	15	—	336	—	—	327	327	—	—	—	—
Total, August, 1937 ...	3,187	11,661	2,284	256	44	17,432	169	9	25,807	25,985	7,550	224	7,774	227
Total, July, 1937 ...	2,896	10,170	1,726	337	91	15,220	169	99	27,806	28,074	11,042	312	11,354	339
Total, August, 1936 ...	4,972	11,184	2,019	345	173	18,693	183	200	37,246	37,629	2,929	—	2,929	301
Total, Eight months ended 31st August, 1937 ...	41,040	134,146	11,025	1,664	3,517	191,392	18,136	108	78,398	96,642	94,008	2,182	96,190	2,522
Total, Eight months ended 31st August, 1936 ...	53,058	115,462	10,388	1,655	12,286	192,849	6,592	205	109,587	116,384	30,959	404	31,363	3,948

IMPORTS AND EXPORTS.

Table showing the Imports and Exports through Northern Ireland ports of certain Agricultural Products during the month ended 31st July, 1937, and the seven months ended 31st July, 1937, with comparative figures for the corresponding periods in 1936. This information also includes trade with the Irish Free State across the land boundary.

(These figures are supplied through the courtesy of the Ministry of Commerce and are subject to revision).

COMMODITY.	IMPORTS.				EXPORTS.			
	Month ended 31st July	Month ended 31st July	7 months ended 31st July	7 months ended 31st July	Month ended 31st July	Month ended 31st July	7 months ended 31st July	7 months ended 31st July
	1937	1936	1937	1936	1937	1936	1937	1936
Bacon ... ... cwt.	3,643	3,075	21,328	20,570	16,930	38,469	196,548	225,146
Hams ... ... cwt.	1,765	2,626	10,316	13,203	9,702	14,414	70,261	82,196
Pork ... ... cwt.	132	411	3,591	7,761	2,624	3,808	20,517	24,877
Butter ... ... cwt.	15,653	21,555	128,571	128,955	502	1,415	1,731	3,196
Eggs ... ... gt. hds.	66,133	108,582	668,223	925,501	408,574	496,884	2,298,289	2,443,297
Oat Products (inc. Oatmeal)cwt.	1,906	2,535	13,650	15,987	2,359	3,137	51,035	47,882
Potatoes ... ... tons	226	191	6,041	10,908	*2,075	*2,602	*135,331	*165,618
Poultry ... ... cwt.	163	179	2,131	2,895	11,999	11,575	116,940	109,657
Grass Seeds ... cwt.	126	1,021	6,697	8,051	3,272	5,425	232,859	279,354

* These figures represent the quantities of potatoes inspected for shipment by the Ministry of Agriculture.

There were no imports of oats direct from abroad through Northern Ireland ports during the month of July, 1937. Imports direct from places abroad during the corresponding month of last year amounted to 7,143 cwts.

Table showing the numbers of Live Stock (1) exposed for sale, and (2) sold at 19 fairs in Northern Ireland during the months of August, 1936, and July and August, 1937.

Description of Live Stock.	August, 1936.		July, 1937.		August, 1937.	
	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.
Store Cattle ...	6,763	4,922	5,470	4,185	5,393	4,368
Fat Cattle ...	1,323	1,114	1,048	911	834	749
Dairy Cattle ...	1,516	1,133	1,115	896	1,221	977
Sheep ...	652	482	400	290	639	474
Lambs ...	2,398	1,989	1,763	1,426	2,510	2,035
Young Pigs ...	2,814	2,193	2,824	2,238	2,483	2,176

The offerings of store cattle at most of the principal fairs held during August were small for the time of the year, and the quality of the stock was generally moderate. The demand remained steady for animals showing quality and condition, and nice coloured heifers suitable for breeding and strong polly bullocks for finishing sold readily at firm rates. For other inferior types trade was of a dragging nature with prices showing a downward trend. A feature of last month's trade was the stronger enquiry for dropped calves. Fat cattle also were shown in rather smaller numbers than usual for August. Many of the cattle were lacking in finish, and although the local demand was steady the duller conditions prevailing in cross-channel centres recently were reflected in the easier rates prevailing towards the close of the month. The trade for dairy cattle was little altered on the month, the smaller offerings attracting buyers in search for good types of young cows and heifers suitable for the cross-channel trade. Good clearances were effected of all well-uddered animals, and prices in many instances showed a firmer tendency. There were good supplies of sheep and lambs at the principal sheep fairs and trade for breeding ewes was the principal feature. As a general rule prices for breeding stock were even better than at this time last year. Lambs for feeding were in keen demand in most districts, and prices were relatively dearer than for fat lambs. Fat lambs were also selling well, although prices fell to slightly lower levels, as also did quotations for aged fat sheep. Young pigs encountered a good demand, and with supplies smaller, yet sufficient for requirements, a good volume of trade was done at prices showing a further slight improvement. Store pigs, where offered at fairs, were also selling well, and the small supplies of breeding sows were in better request at firmer prices, quality breeding stock in particular showing appreciable gains.

10th September, 1937.

This report will be sent free monthly as issued on application being made to the Secretary, Ministry of Agriculture, Stormont, Belfast.

ULSTER DAIRY SCHOOL, COOKSTOWN.

U. D. S.

USEFUL and practical courses of instruction in poultry-keeping, dairying and domestic science are provided for girls at this School.

DEFINITE advantages are derived from a course of training, whether the object is to return home or to take employment elsewhere.

SCHOOL fees are only £3 : 3 : 0 per term of 11 weeks, inclusive of board and residence.

Candidates for admission should obtain copies of the prospectus from the Ministry of Agriculture, Stormont, Belfast, and send in application forms without delay. Next term begins on 12th October, 1937.

MINISTRY OF AGRICULTURE.

List of Leaflets and other Publications.

LEAFLETS.

No 1. Flax Seed, 1937.
" 2. Improvement of Farm Poultry.
" 3. Feeding for Egg Production.
" 4. Marketing of Eggs.
" 5. The Dishorning of Calves.
" 6 The Packing of Apples in Standard Boxes.
" 7. Potato Trials.
" 8. Seed Testing for Farmers.
" 9. The Renovation of Orchards.
" 10. Fruit Tree Pests—Capsid Bugs.
" 11. Fruit Tree Pests—Aphides and Apple Sucker.
" 12. Fruit Tree Pests—Caterpillars
" 13 Contagious Abortion in Cattle
" 14. Cheese-making on the Farm.
" 15. Suitable Varieties of Fruit.
" 16. The Feeding of Dairy Cows.
" 17. Home Bottling of Fruits and Vegetables.
" 18. Marketing of Dead Poultry.
" 19. How to Feed Linseed.
" 20. The Hatching and Rearing of Chickens.
" 21. The Uses and Advantages of Portable Poultry Houses.
" 22. Leather-Jacket Grubs.
" 23. The Handling and Care of Wool.
" 24. Fluke in Sheep.
" 25. The Rearing and Management of Young Horses.
" 26. Ordnance Survey Maps for Farmers.
" 27. How to Keep Eggs Clean
" 28. The Construction of a Laying House for Poultry.
" 29. The Selection and Breeding of Laying Hens.
" 31. Coccidiosis in Poultry
" 32. Roup of Poultry (Fowl Pox).
" 33. Spraying Calendar for Apple Orchards.
" 34. The Pruning of Apple Trees.
" 35 The Fattening of Pigs.
" 36. Advantages of Milk Recording.
" 37. The Raising and Fattening of Turkeys.
" 38. The Destruction of Charlock.
" 39. The Production of Clean Milk.
" 40. The Laying Down and Management of Temporary Pastures.
" 41. Blackleg, Blackquarter or Quarterill.
" 42. The Purchase of Balanced Rations for Dairy Cows.
" 43. Tuberculosis in Poultry.
No. 44. Results of Crop Experiments, 1936.
" 45. The Breeding and Rearing of Pigs.
" 46. Hints for Winter Egg Production.
" 47. The Care and Management of Sheep.
" 49. American Gooseberry Mildew.
" 50. Potato Blight.
" 51. Butter-making on the Farm.
" 52. Gapes in Chickens
" 54 The Breeding and Rearing of Calves.
" 55. Destruction of Ragwort or Benweed.
" 56 Identification of Egg Supplies.
" 57. How to have Eggs of First Quality.
" 58. How the Fertilisers and Feeding Stuffs Act benefits the Farmer.
" 59. Bacillary White Diarrhoea (Pullorum Disease).
" 60. Advantages of Winter Agricultural Classes.
" 61. The Care and Management of Breeding Bulls.
" 62. The Production of Timber on the Farm.
" 63. Sheep—Castration, Docking, Foot-Rot and Care of Feet.
" 64 The Destruction of Warble Fly Maggots in Cattle.
" 65. The Packing of Apples in Barrels
" 66. Seed Testing Facilities for Traders.
" 67. The Cultivation of Vegetables.
" 68. The Cultivation of Strawberries.
" 69. The Construction of Piggeries
" 70. Ringworm.
" 71. The Cultivation of Raspberries.
" 72. Tree Planting for Shelter and Ornament.
" 73. The Propagation and Maintenance of Healthy Stocks of Potatoes.
" 74. New Pure Strains of Flax.
" 75. Pig Production and the Pigs Marketing Scheme.
" 76. Acarine (Isle of Wight) Disease of Bees.
" 77. Licensing of Milk Producers and Distributors.
" 78. Graded Milk.
" 79. The Picking and Storing of Apples.
" 80. Hoose or Husk in Farm Stock.
" 81. The Construction of Cow Houses.
" 82 White Scour in Calves.
" 83. The Care, Management and Feeding of the Poultry Breeding Stock.

Any of the above leaflets may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

CIRCULARS.

No. 1. Phosphatic Fertilisers.
" 5. Why Pay a Tax on the Horns of Cattle ?
" 8. Basic Slag.
" 9. Smut in Oats.
" 10. Purchase of Fertilisers and Feeding Stuffs.
" 11. Fertilisers and Feeding Stuffs Act—General Summary.
" 12. The Treatment of Liver Fluke.
" 13. The Ox-Warble Fly
306. Fertilisers and Feeding Stuffs Act, 1926—Revision of Regulations.

MISCELLANEOUS PUBLICATIONS.

Store Cattle.
Reports on Egg-Laying Tests.
Crop Insurance.
List of Growers of Certified Crops of Immune Varieties of Potatoes.
List of Growers of Certified Crops of Non-Immune Varieties of Potatoes.
The Ministry's Monthly Report.
Register of Premium Stallions.
Guide to the Live Stock Breeding Act (Northern Ireland), 1922.
Guide to the Marketing of Fruit Act (Northern Ireland), 1932.

Any of the above publications may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

The following publications can be obtained from His Majesty's Stationery Office, 80 Chichester Street, Belfast, at the prices stated :—

(1) The Annual Report of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
(2) Annual Report upon the Agricultural Statistics of Northern Ireland. Price 2/ net.
(3) The Journal of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
(4) The Agricultural Output of Northern Ireland, 1925. Price 2/6 net.

W826/G1,681. 4,100. 9/37. BL. G258.